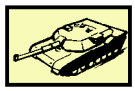
PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-570, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

ISSUE 570 MAY 2000



You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems, and questions or comments on material published in PS. Just write to:

MSG Half-Mast
The Preventive Maintenance Monthly
LOGSA, Bldg. 5307
Redstone Arsenal, AL 35898-7466

Or E-mail to:

psmag@logsa.army.mil

Internet Address:

http://www.logsa.army.mil/psmag/pshome.html

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the Secretary of the Army
0006602

PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898-7466. Periodical Postage is paid at the Huntsville, AL post office and at additional mailing offices.

Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, LOGSA, Redstone Arsenal, AL 35898-7466.

Issue 570

PS

May
2000

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-570

The Meeting at Culpeper
. . . See Page 27

AT WHAT PRICE PM?

Operators, is your time worth $19,000 a minute? $95,000 a minute? How about $4,500,000 a minute? How about a life?

Most checks in your before-operation inspection take no more than a minute of your time. But if you miss just one of those checks, that minute can be mighty expensive.

Say you're operating a small emplacement excavator (SEE) and you forget to check the engine's oil level. Or you assume it must be OK because it was full yesterday.

But your assumption is wrong, very wrong. The SEE developed an oil leak and all of the oil leaked out overnight. You throw a rod—the engine's shot…more than $19,000 down the drain!

Or you take off in an FMTV 2 1/2-ton truck without letting the central tire inflation system (CTIS) stabilize at a selected tire pressure. Or you see that the system's electronic control unit (ECU) is unhooked, but you don't report it.

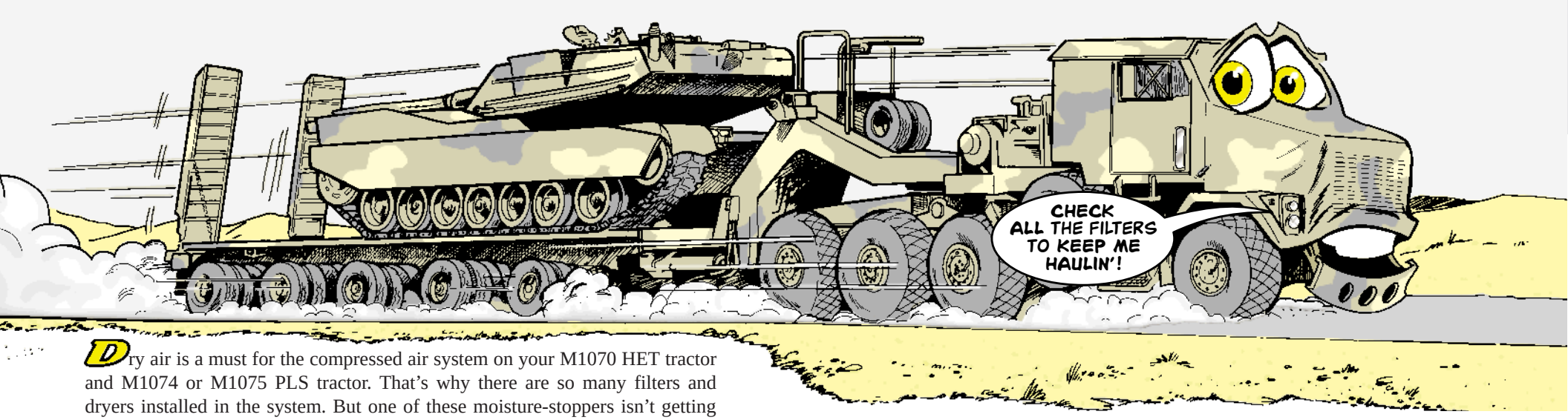
With low tires, you make a quick turn down a steep hill and the vehicle rolls over. If you're lucky, you stumble out of the truck only to look at a pile of junk—smoking 'n' steaming to the tune of about $95,000.

The stakes are **really** high when you're crewing a Black Hawk. Around $4,500,000 in hardware. Anywhere from 3 to 12 lives—including yours.

So the only thing you miss in your pre-flight check is a bum hookup in a fuel line quick-disconnect. That's enough. You can't put a price tag on a life.

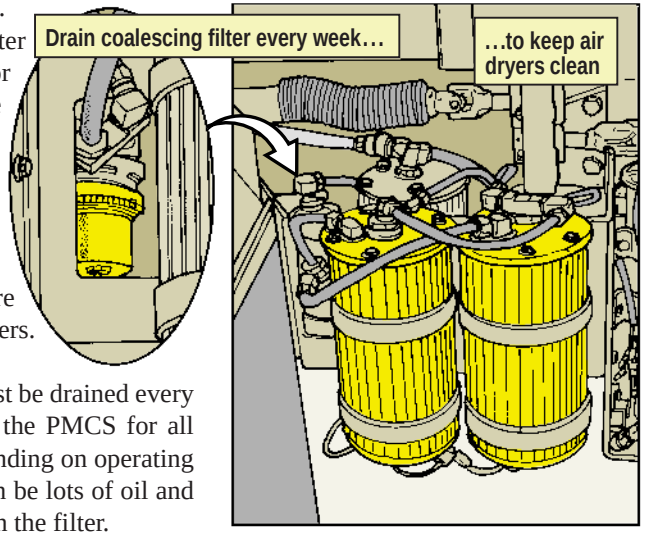
So ask yourself, "Is the minute I save worth $19,000, $95,000 or $4,500,000…or the lives of others—or my own?"

Keeping the Air Dry



Dry air is a must for the compressed air system on your M1070 HET tractor and M1074 or M1075 PLS tractor. That's why there are so many filters and dryers installed in the system. But one of these moisture-stoppers isn't getting the PM it must have.

The coalescing filter is the second stop for air after it leaves the compressor. (The first stop is the aftercooler.) The filter removes oil and moisture from pressurized air before it goes to the air dryers.



In regular use, the coalescing filter must be drained every week, according to the PMCS for all three tractors. Depending on operating conditions, there can be lots of oil and moisture collected in the filter.

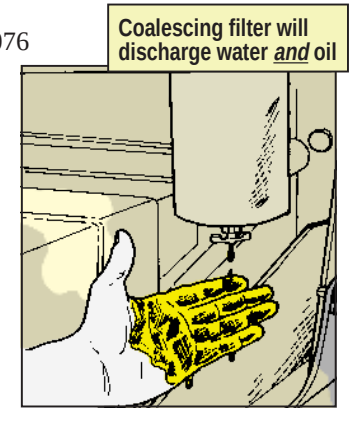
The draining is not happening, however. Over time, as the filter fills up with oil and moisture, less filtering is done. That passes oil to the air dryers, causing them to get dirty and clogged quicker than normal.

When the air dryers can't handle the wet, oily air coming from the coalescing filter, they just pass it on to the reservoirs. Assuming the reservoirs are drained daily as required by PMCS, operators will notice more and more water coming from them.

Regardless, in operation the wet air gets passed through the entire compressed air system, including the air system of any trailer hooked up to the tractors.

This has caused clogging of the spider valves on the M1000 HET trailer, which defeats the suspension system that makes the trailer so valuable in hauling tanks. It can also cause brake failure.

Wet air will also clog the air system on M1076 PLS trailers, reducing their braking capabilities.



You can stop all this damage by draining the coalescing filter weekly as called for in your truck's PMCS. If you haven't drained it lately, don't be surprised if you get a slimy mess in the container you use. A little bit is OK. The filter's doing its job.

Let your mechanic know if you get a steady stream of this stuff coming from the filter. He'll need to check the other air filtering and drying components in the system for damage.

M1000 HET Trailer . . .

Cover Leg, or Lose It

One sure way to lose the use of a rear landing leg on the M1000 HET trailer is to let its cover get damaged.

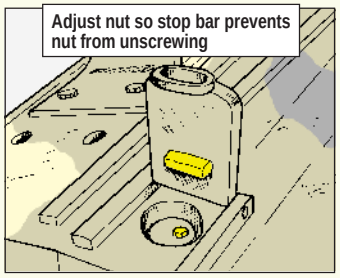
While it's true that a 70-ton tank track will sometimes do a job on the cover no matter what you do to prevent it, most of the damage can be prevented.

Here's how:

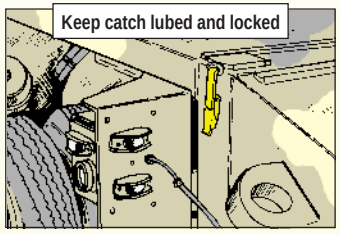
fl Keep the support leg cover closed and latched completely when loading or unloading a tank.

Make sure the stop bar—the raised ridge under the cover—doesn't rest on the actuator nut setscrew when the cover's closed. The bar is there to keep the nut from turning on its own and lowering the support leg.

Adjust the nut so the bar clears the setscrew.

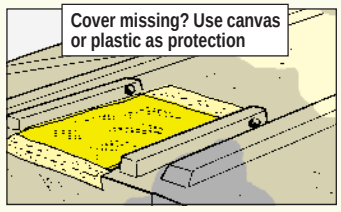


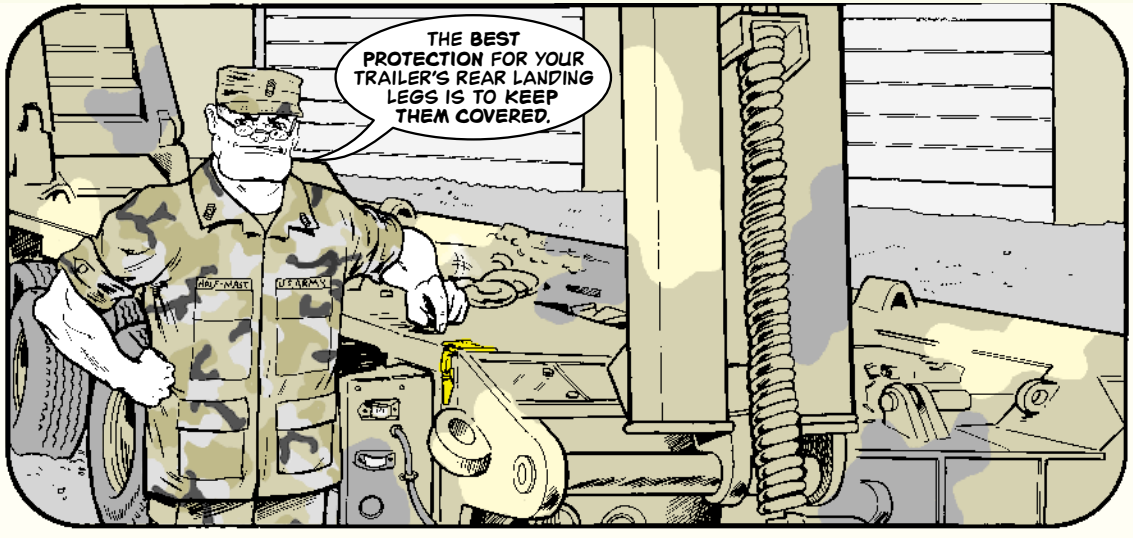
Always lock the cover closed using the clamping catch. If the catch won't close easily, look to see if the stop bar is resting on the setscrew.



If the catch is broken, get it replaced as soon as possible. Parts for the cover and catch are found in Fig 44 of TM 9-2330-381-24P. The cover, NSN 5340-01-385-9861, costs almost nine times as much as the catch, NSN 5340-01-116-3348. So, it makes sense to replace the catch to save the cover.

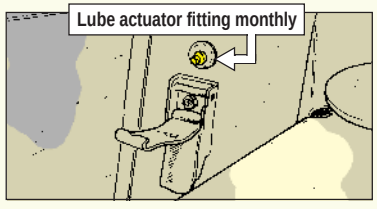
fl If a rear support leg cover is already missing from your trailer, put something (piece of canvas, plastic, etc.) over the top of the leg to keep rain and dirt out until a replacement cover is installed. Leaving the cover off can result in a "frozen" leg that is almost useless in supporting the trailer in operation.





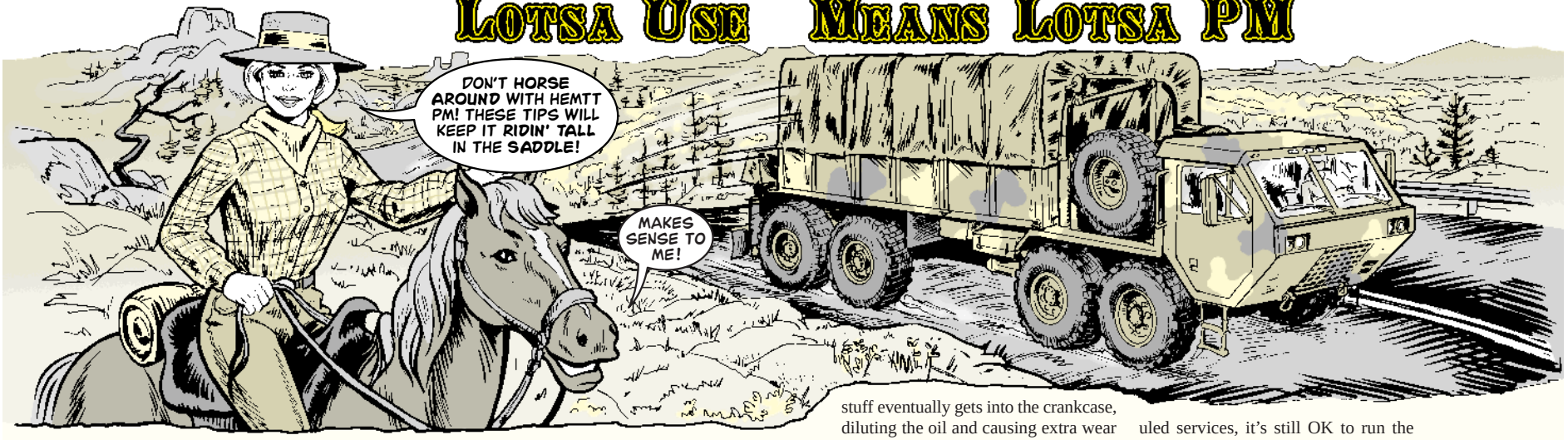
fl Lubricate the actuator nut and the actuator monthly as prescribed in the lubrication chart on Pages 3-12 and 3-13 of TM 9-2330-381-14.

The actuator has a grease fitting and needs just a couple of pumps of GAA. But the nut must be lubed by hand, so clean off the nut and surrounding area, removing old grease and dirt. Then apply GAA on and around the nut so it will turn freely. Don't overlube, 'cause it'll just attract dirt, which can gum up the works.



HEMTT . . .

LOTSA USE MEANS LOTSA PM



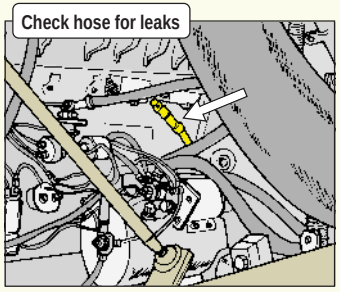
HEMTTs are the workhorses of hauling, and to keep any "horse" ready to work you've got to take care of it.

That takes all the know-how you can gain from PMCS items in TM 9-2320-279-10, plus these tips:

Limit Idling

HEMTT engines are known "slobberers" when they're idled too long. Unburned fuel condenses in the air box and drips from the drain hose, making a mess that looks like an oil leak.

Before you write up diesel slobber as an oil leak, warm up the engine. Run it at high idle—between 1,000 and 1,200 rpm—for 5–10 minutes. Watch the temperature gauge. When the gauge needle is in the normal range, run the engine another couple of minutes. Then look at the air box drain hose. If it's just slobber, the wetness will be gone.



To prevent as much slobbering as possible, limit idling to 10 minutes or less, especially when the humidity is high and the outside temperature is low. Under those conditions, a diesel engine doesn't stay hot enough to completely burn the fuel. The unburned stuff eventually gets into the crankcase, diluting the oil and causing extra wear and tear on engine parts.

Prevent as much of this damage as possible by shutting down if you'll be sitting still for longer than 10 minutes.

Engine Leaks

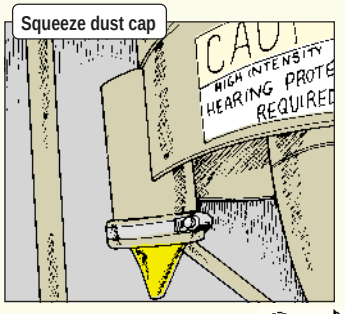
The HEMTT engine is a known leaker, too, losing oil from the front seal. But not every Class III leak makes your truck immediately NMC. Report the leak, but keep an eye on it. There are 7 1/2 gallons of oil in the engine, so a little loss while you complete your mission or scheduled repairs is OK.

Once the mission is complete and scheduled repairs finished, then the truck is NMC for the Class III leak.

Even with no leaks, the engine uses a lot of oil. A good rule of thumb is that if you add less than 20 percent of the oil—6 or 7 quarts—between scheduled services, it's still OK to run the truck. Use more than that and the engine needs repair.

Clean Air

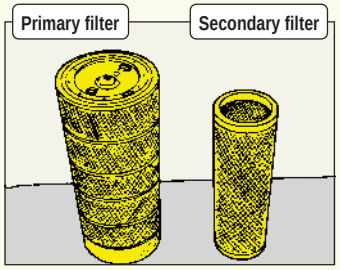
Before operation, squeeze the dirt out of the dust cap on the bottom of the air cleaner. Do it more often if you're operating in a dusty or sandy area.



PS MORE

Keep an eye on the air cleaner indicator, too. If it shows red, stop and clean out the filters.

Pop the canister lid and pull out the air filters. The secondary filter is inside the primary filter. Tap each one—hard—with the heel of your hand to loosen dirt. Then tap some more to knock stuff out of the filters.



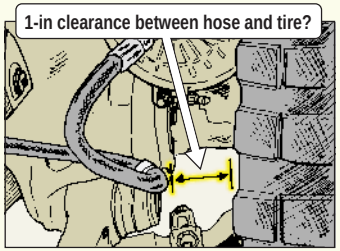
Never bang either filter on a rock or hard surface 'cause you can bend or dent them so badly they won't seal right in the canister and keep dirt out.

Air Hose Rub

Eyeball the air hoses for the front wheel brake chambers. Hoses tend to rub against the tires when you turn, especially if there's not enough clearance between the hose and the tire.

Enough rubbing will cause leaks and you'll be brake-less next time you need to stop.

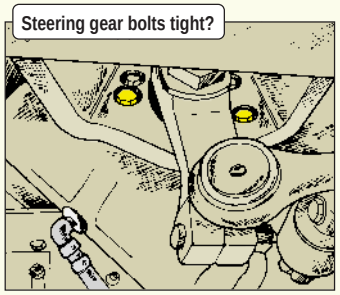
Before leaving the motor pool, turn the front wheels full right. Get down and look for an air hose worn through its outer cover. Look also for an inch of clearance between the hose and the tire. Then turn the wheels full left and make the same check on the other side of the truck.



If you find wear or a clearance problem, write it down so your mechanic can replace the hose or fix the clearance.

Loose Steer Gear?

Steering gear bolts work loose, which makes for sloppy steering. So, eyeball the bolts before you move out. If you see shiny spots—or rusty spots that were shiny before corrosion set in—around the bolt heads or nuts, report them.

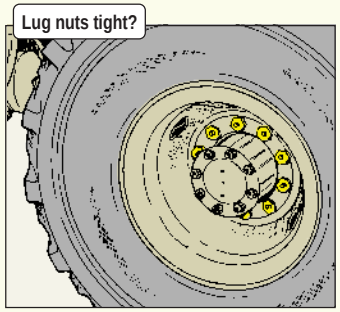


Your mechanic will back off each bolt and then torque it to 125–135 lb-ft.

Wheel Nut Torque

Wheel nuts loosen in use, too. This makes for bent or broken studs and possibly a runaway wheel.

Before heading out, take a look at the nuts on each wheel. Look for chipped paint, shiny spots or rust around a nut. If you see any signs of loose nuts, grab your tools. Back off the nut, then retighten it.



During the next scheduled service, your mechanic will torque nuts to:

Vehicle	Front (lb-ft)	Rear (lb-ft)
All (except M984E1)	575–625	450–500
M984E1	575–625	575–625

HEMTT Wreckers . . .

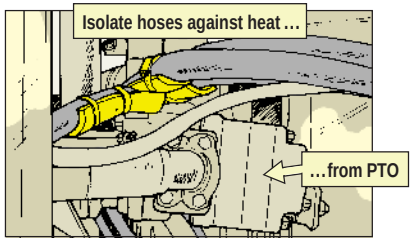
Wrap Hoses Against Heat

You HEMTT wrecker operators and mechanics know well that the hydraulic fluid inside the system hoses and lines gets very hot when you're recovering another vehicle.

What you may not know is that there's a bigger heat danger from outside the hydraulic system—the power take-off (PTO) assembly. Heat from the PTO can weaken hydraulic hoses enough to cause a rupture, spraying hot fluid over everything and everybody.

So, eyeball the outlet and inlet hoses that crisscross above the PTO assembly. If the hoses touch it, you need to isolate them so there's extra protection against heat and wear.

Take pieces of battery matting, NSN 6160-01-389-1966, and install them with worm-type clamps wherever a hose rests against the PTO. You can get worm clamps with NSN 4730-01-273-3671.



Fuel in Geared Hubs?

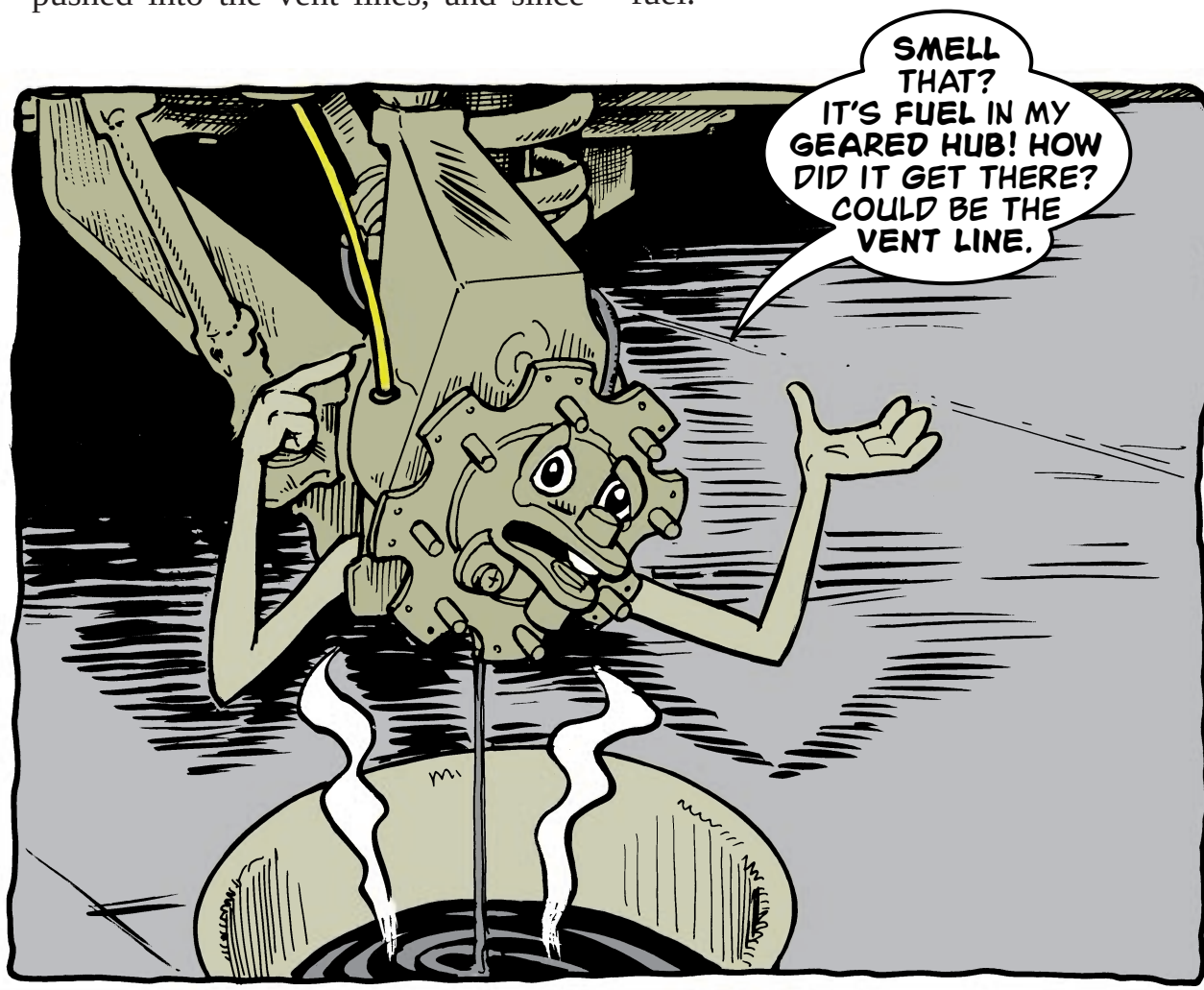
One thing you don't expect to find in the geared hubs on HMMWVs is fuel. Gear oil? Of course. Water? Maybe, if the hub seal is bad. But fuel?

It **is** possible, because the vent line from the geared hub is connected to the vent line from the fuel pump. But for fuel to get into the geared hubs, the fuel lift pump diaphragm must be leaking. If the pump is leaking, your truck could also be hard starting or rough running.

Pump problems can cause fuel to be pushed into the vent lines, and since the geared hubs are the lowest points in the vent system, the fuel tends to go there.

Fuel and gear oil together don't lube well, leading to damage to hub gears. Plus, too much liquid in the geared hubs leads to blown seals.

Remember, finding fuel in the geared hubs is rare. But if you do, replace the fuel lift pump, NSN 2910-01-168-7905. Then replace the hub gear oil. You need to blow out the vent system with compressed air to get rid of the fuel.



Watch Your Feet

It's plain and simple—painted right on top of the vehicle's air intake tube—NO STEP.

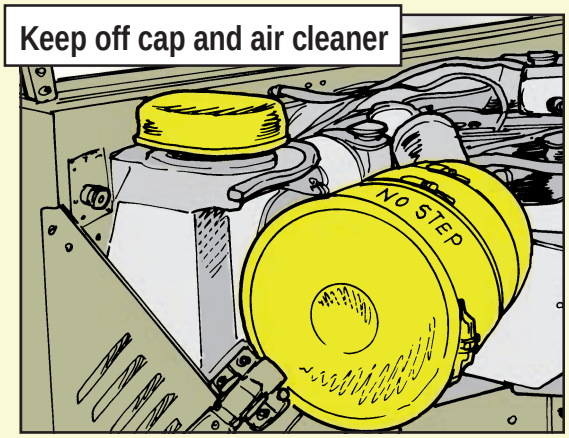
The tube looks solid, but it cracks when a boot bears down on it. Once it cracks open, the damage begins—dirt, dust and crud get sucked into the engine.

Stay off air cleaner housing

Air Cleaner Housing

The same goes for the HMMWV's air cleaner housing—don't step on it. Your weight will bend or crack the housing where it mounts into the precleaner. You won't get a good seal on the cap and extra dirt and dust hit the air cleaner, plugging it up.

Keep off cap and air cleaner



Stay off the Hood

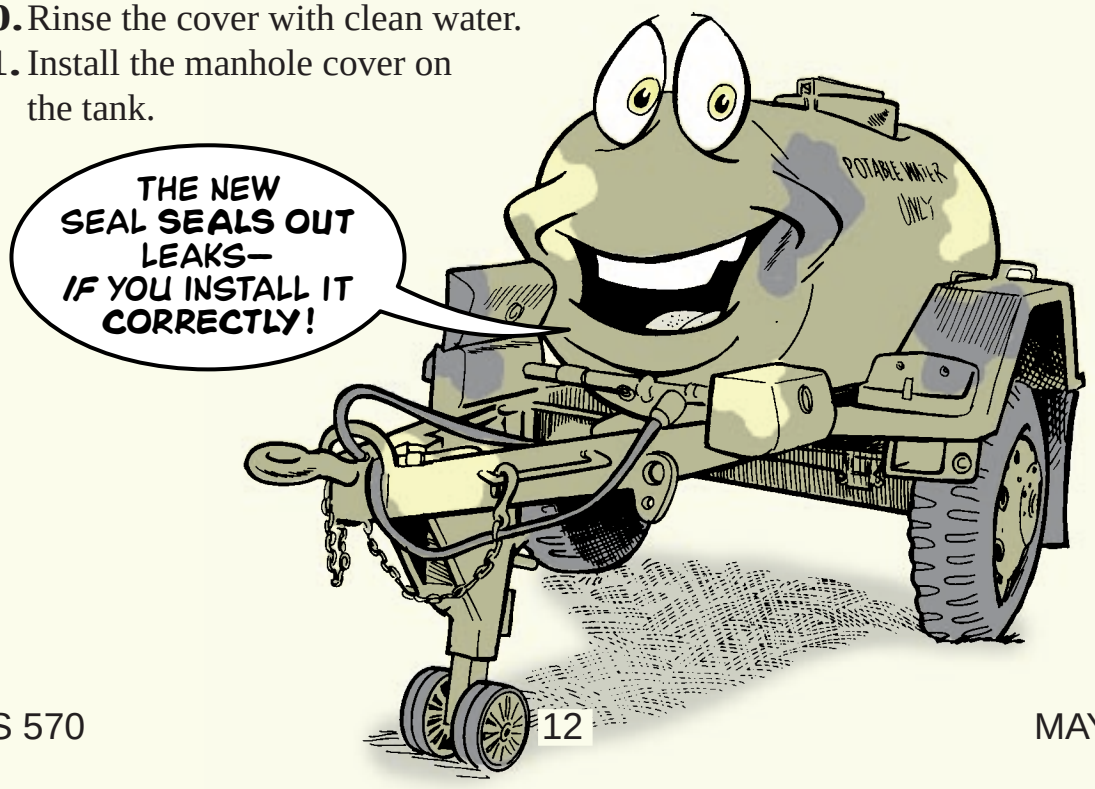
Finally, never step on the HMMWV's hood. It's made of fiberglass, and will crack under your weight. Your vehicle will soon be heading back to the shop for repair.

Dry Up Manhole Leaks

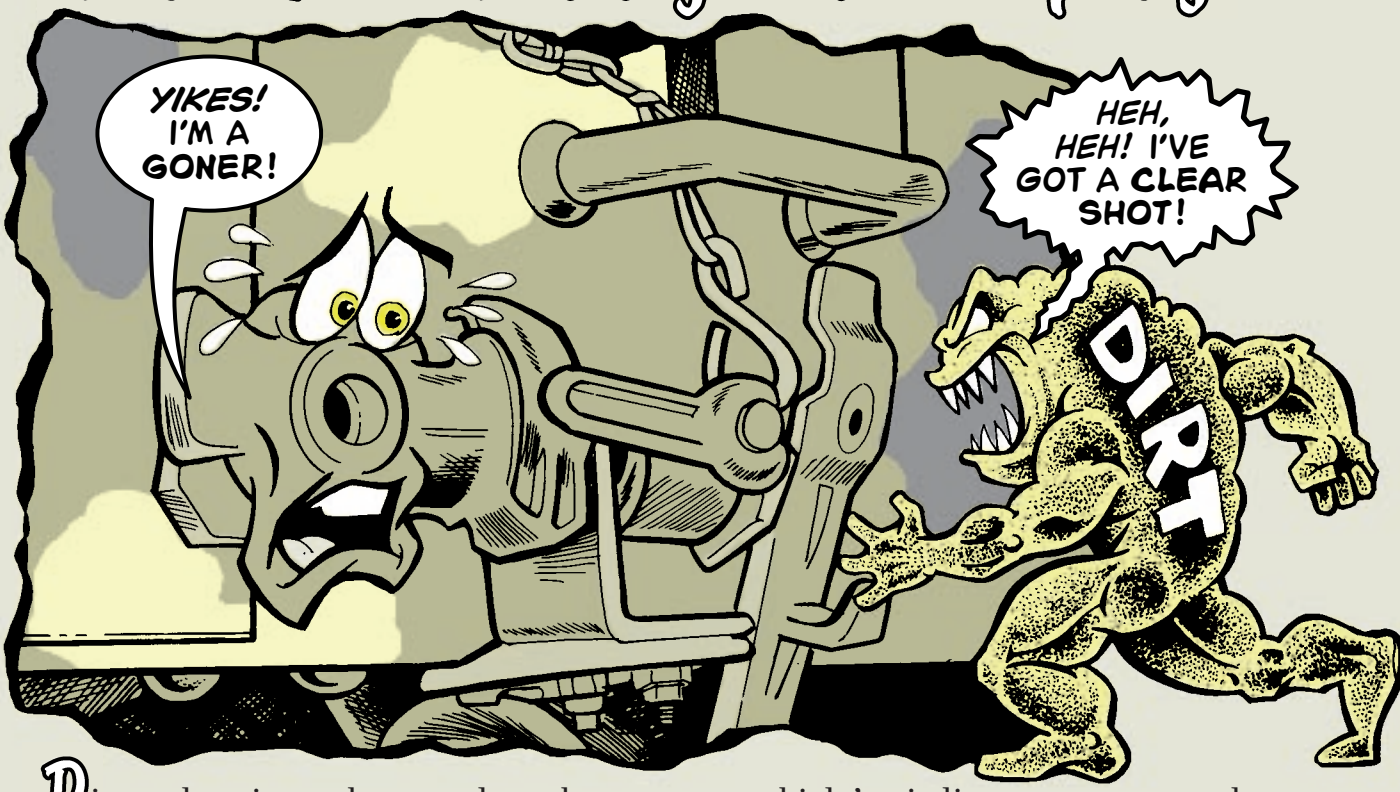
There's an improved manhole cover seal available for your M149A2 400-gal water tank that will make leaks a thing of the past.

But that seal, NSN 5330-01-317-9640, is only as good as its installation. Here's how to do it:

1. Remove the manhole cover.
2. Scrape off the old seal and toss it.
3. Sand the outer 1 1/2 inches of the underside of the cover with emery paper.
4. Use denatured alcohol to wash the sanded area. Be careful not to touch the sanded and washed area with your bare hand. Oil or dirt from your hand can keep the sealant from working properly.
5. Let the cleaned area dry.
6. Spread a 1 inch wide band of silicone adhesive, NSN 8040-00-118-2695, around the outside edge of the cover.
7. Slip the seal onto the cover.
8. Put a little more sealant around the inside of the seal where it meets the cover.
9. Now lay the cover with the seal side down on a smooth, flat surface, such as a work bench. Let the sealant cure for 24 hours.
10. Rinse the cover with clean water.
11. Install the manhole cover on the tank.

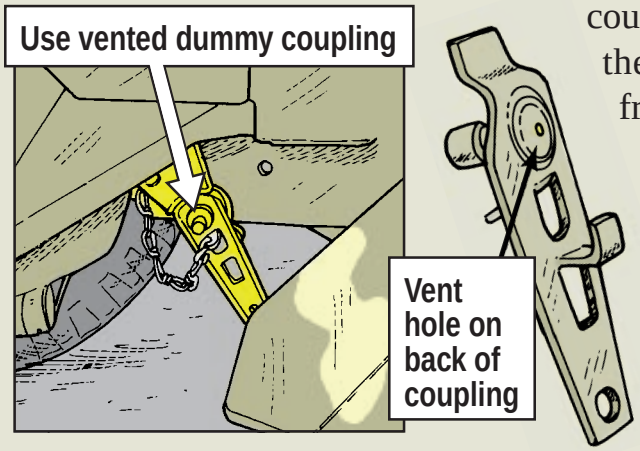


Don't Be a Dummy—Use Coupling



Dirt and moisture have a clear shot at your vehicle's air line connectors and receptacles if you don't use dummy couplings. Grit can plug up a valve or moisture can rust it shut, leaving you brakeless.

When you unhook air lines, put the dummy couplings on the truck's half couplings. Hook the trailer's air lines to the dummy connectors on the trailer frame.

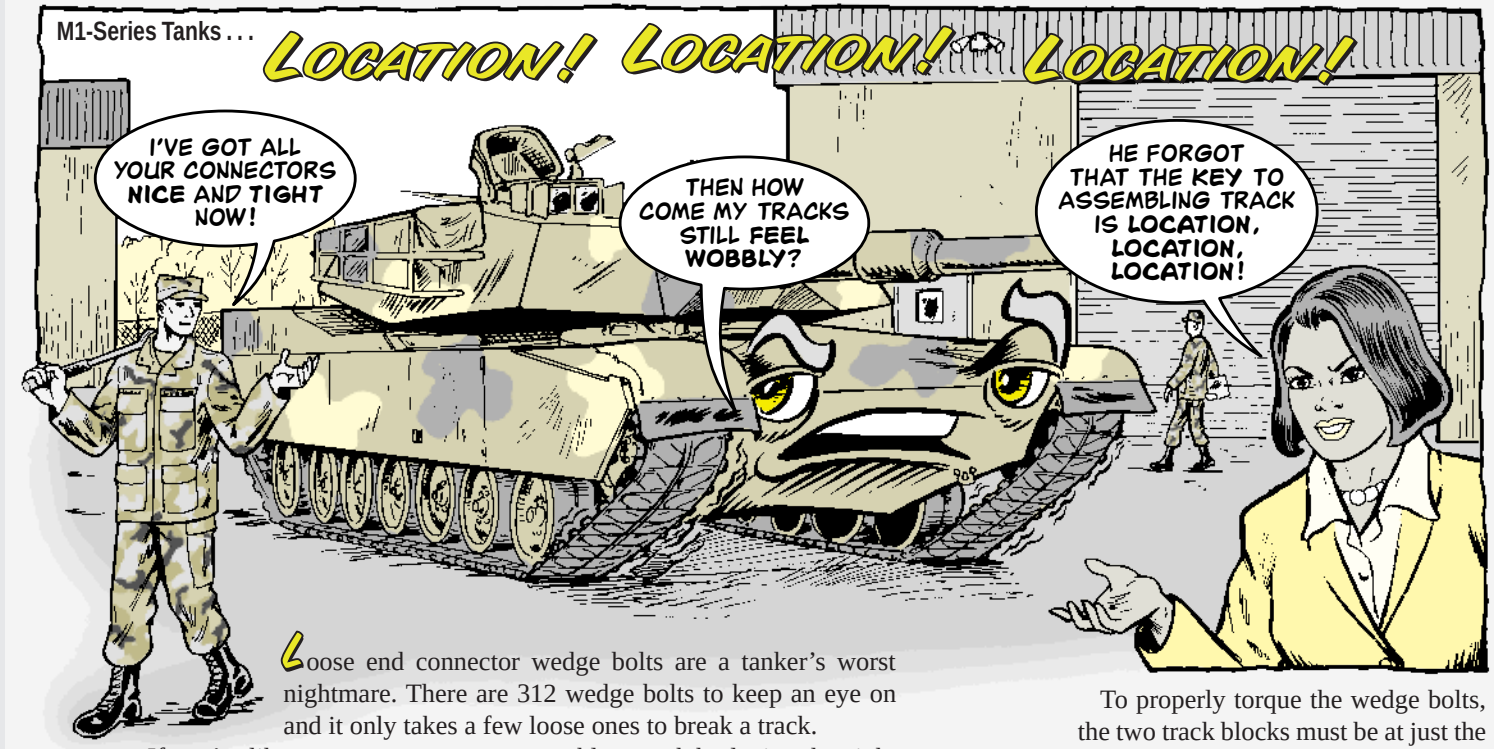


Make sure you use a vented dummy coupling, NSN 2530-00-740-9445, on the front service brake coupling of vehicles with air-hydraulic brake systems, such as M39-series and M809-series 5-ton trucks.

Without a vent, back pressure builds up in the air-hydraulic cylinder when you step on the brake pedal. The cylinder can't release air, so the brakes lock up.

If you have a vented coupling, but the brakes still lock up, make sure the vent is open. Blow into it. You should feel air coming through. If not, take it off and clean it in soapy water. Rinse and let it dry completely.

Blow into the vent again. If you still can't feel air coming through it, tell your mechanic. He'll replace the bad coupling with a good one.

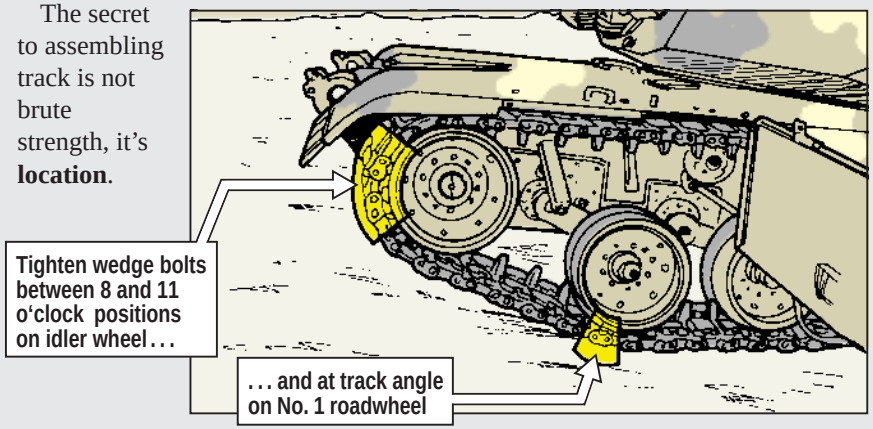


Loose end connector wedge bolts are a tanker's worst nightmare. There are 312 wedge bolts to keep an eye on and it only takes a few loose ones to break a track.

If you're like most crewmen, you assemble a track by laying the eight block sections on the ground and hooking them together. Then you tighten the end connector wedge bolts with all your might.

Unfortunately, you're wasting your time. As soon as the track is on the tank, the wedge bolts will start coming loose.

The secret to assembling track is not brute strength, it's **location**.



To properly torque the wedge bolts, the two track blocks must be at just the right angle to each other. That's so there is no tension between the wedge bolt and the angled face on the two track pins.

The only places where this happens are the two angles created by the track between the idler wheel and the No. 1 roadwheel. It's there and only there that you should assemble a new track or replace a track block.

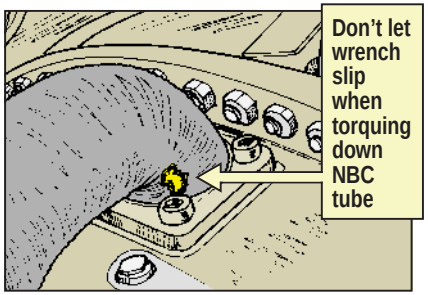
The same goes for loose wedge bolts you find during inspection. It won't do any good to tighten the bolts unless you do it at the angles between the idler wheel and the No. 1 roadwheel.

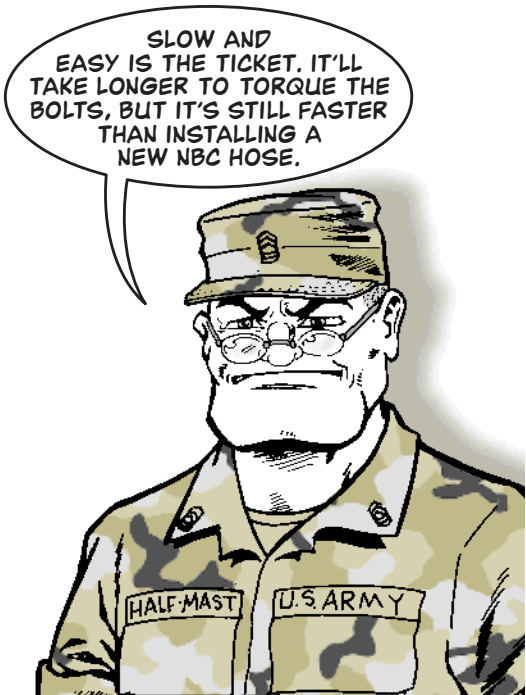
Torquing the wedge bolts in the right place will keep your tank on track for many miles to come.

The Frustration Factor

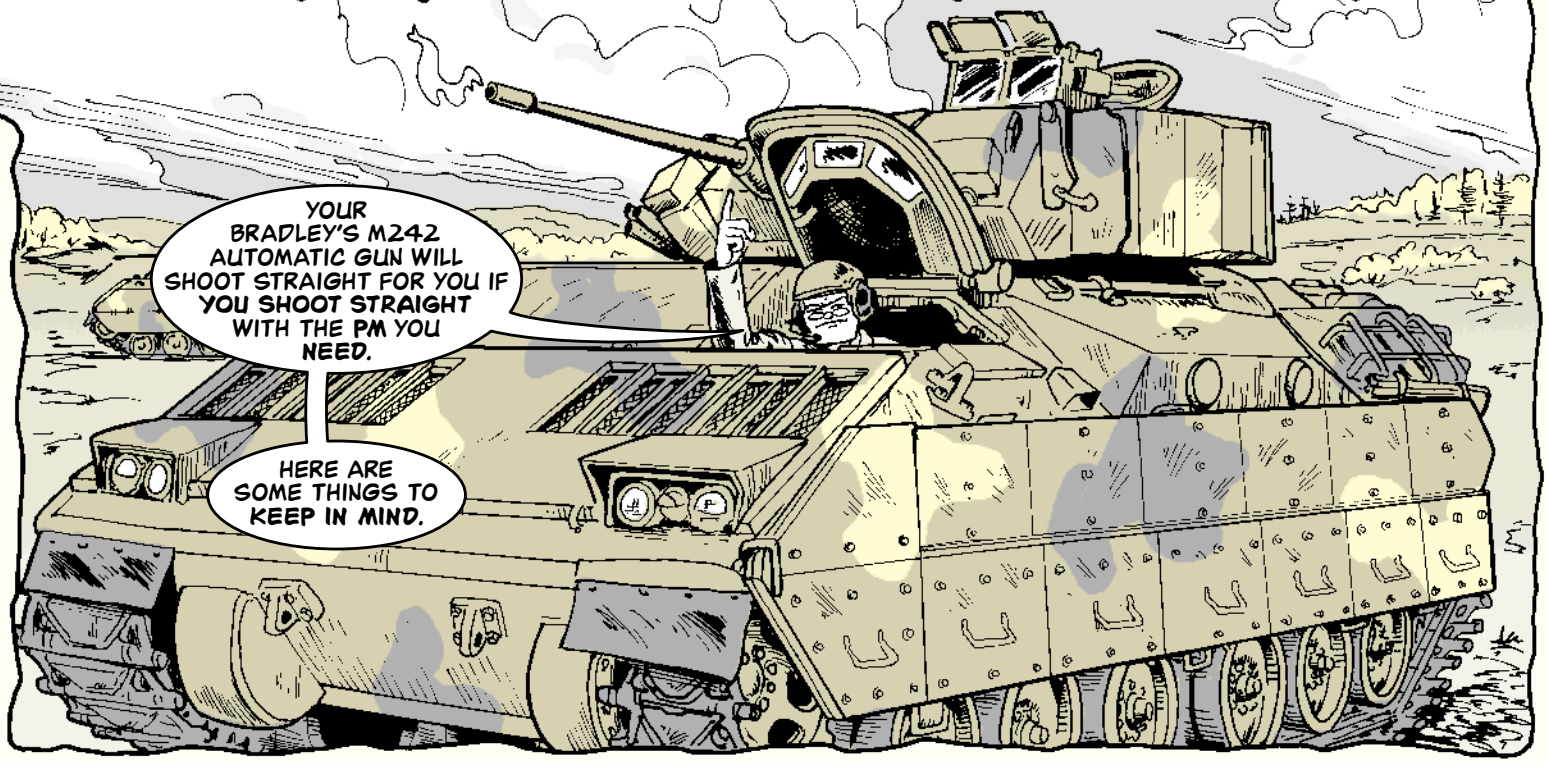
Mechanics, take the frustration factor into consideration when torquing down the hex socket bolts that attach the NBC tube to the engine on M1-series tanks.

The bend in the tube makes it hard to get your torque wrench on two of the four bolts. If you're not careful, the wrench slips and the tube is cut. If outside air can get in, the tank is NMC.





M242 STRAIGHT SHOOTING PM



Lubrication

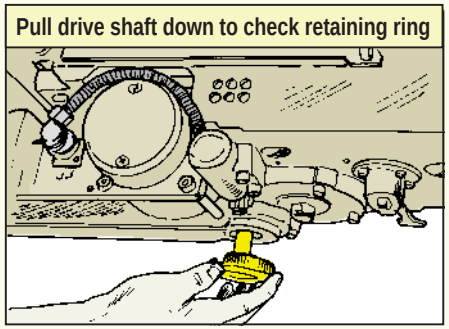
CLP is fine for most weapons, but it's poison for the M242. It breaks down the grease in gears and sprockets, and in the track and bolt assembly. When that happens, bushings, gears, and bearing wear out fast. It takes 4 hours for support to tear down an M242 and replace the grease.

Clean and lube your M242 like the TMs say. The info is found in:

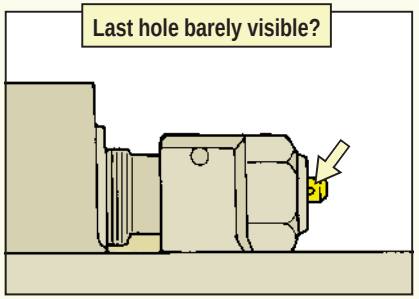
TM 9-2350-252-10-2	Page 3-54
TM 9-2350-284-10-2	Page 3-48
TM 9-2350-284-10-2-1	Page 3-52

PMCS

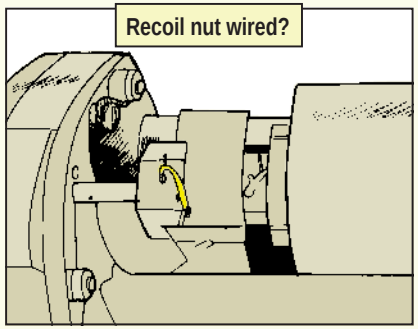
The retaining ring for the vertical drive shaft can work loose and disappear. That can cause the M242 to jam. To check the ring, just gently pull the drive shaft down from the receiver. As long as the shaft doesn't come out of the receiver, the ring's OK.



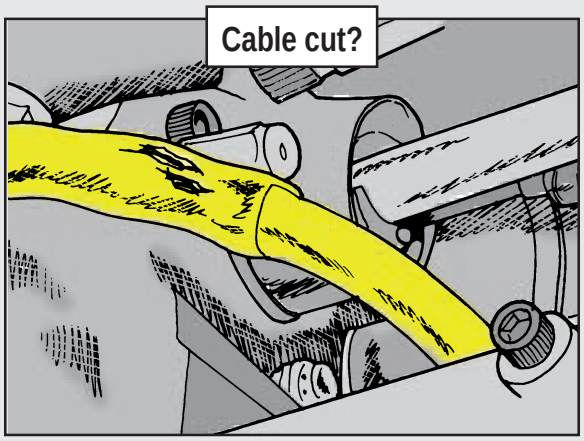
Eyeball the receiver piston rod. If you can barely see the rod's last hole, there's not enough hydraulic fluid to cushion the 10,000 pounds of recoil. Tell your repairman.



Also check the lacing wire on the recoil assembly nut. If it's broken, the nut can back off and the breech won't be secure.



Eyeball the feed select solenoid cable for cuts and breaks. Tape minor cuts with electrical tape to keep them from getting worse. A cable with exposed wiring needs to be replaced by support.

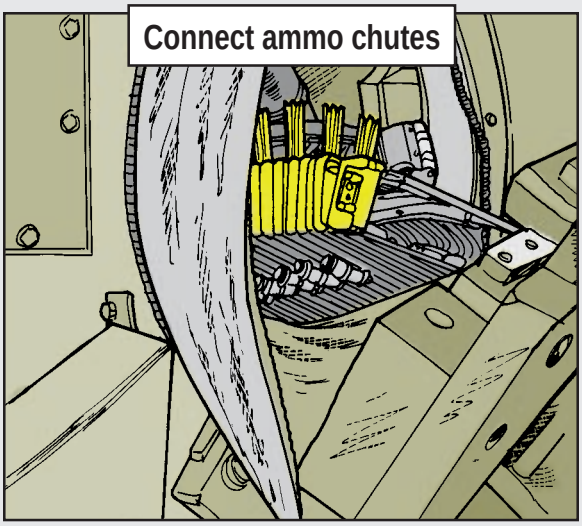


Installation

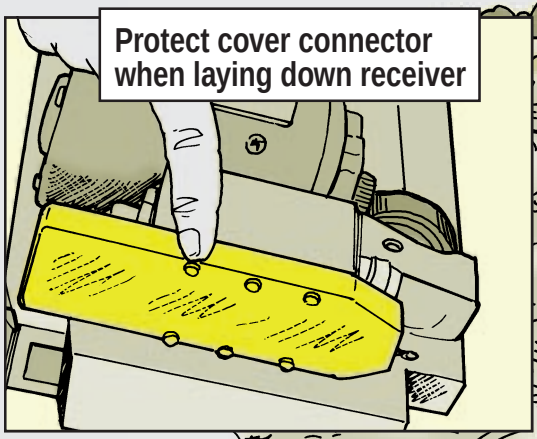
Do not try to wrestle the 95-lb receiver into the turret by yourself. It's a two-man job.

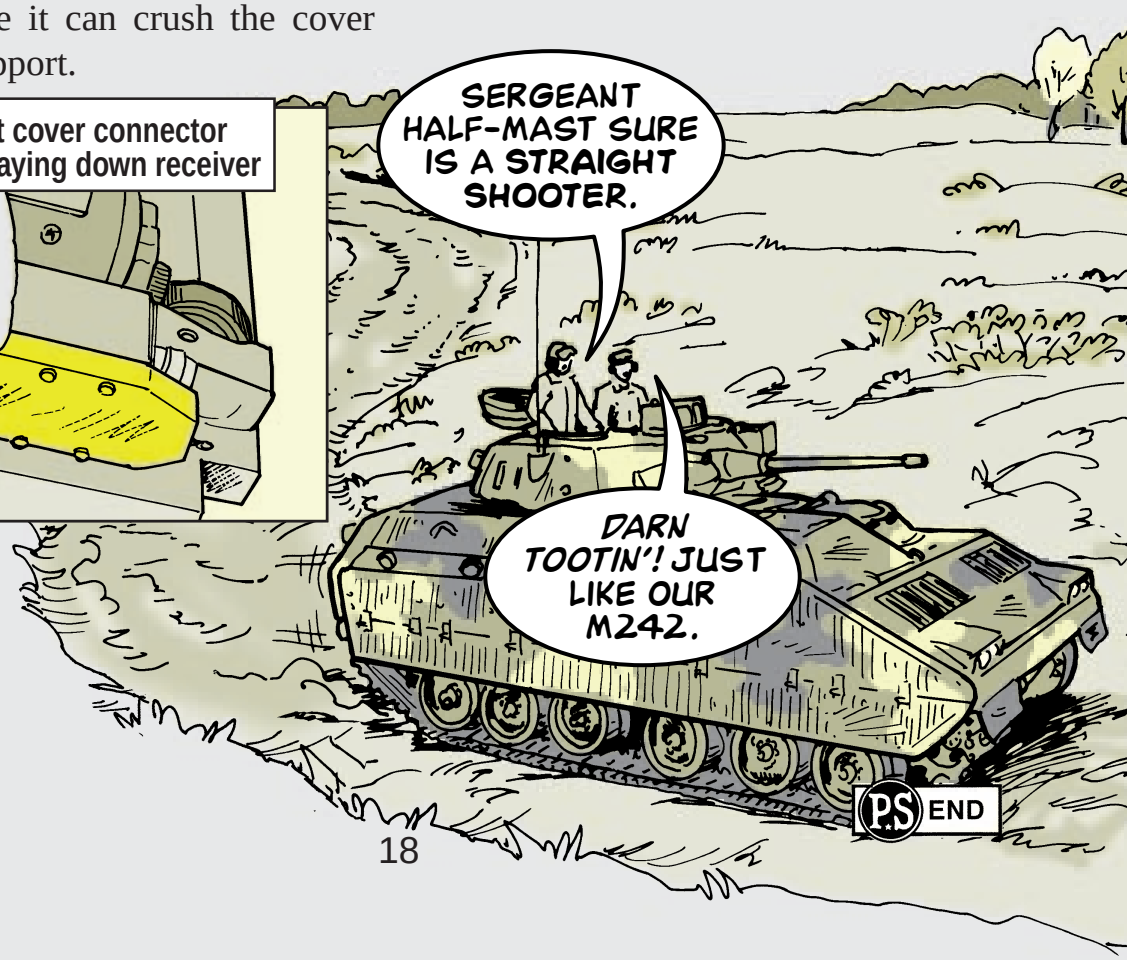
Protect the sear solenoid by pointing it up so that it can't be hit by the sides of the turret. Never rest the receiver on its end where it can crush the cover connector support.

Once the receiver's installed, connect the four ammo chutes. If they're left dangling, they can rip out cables when the gun's lowered or raised.



When you remove the receiver, don't twist it. Twisting lets the support bracket for the gun control panel tear off the solenoid. Just pull the receiver straight out.



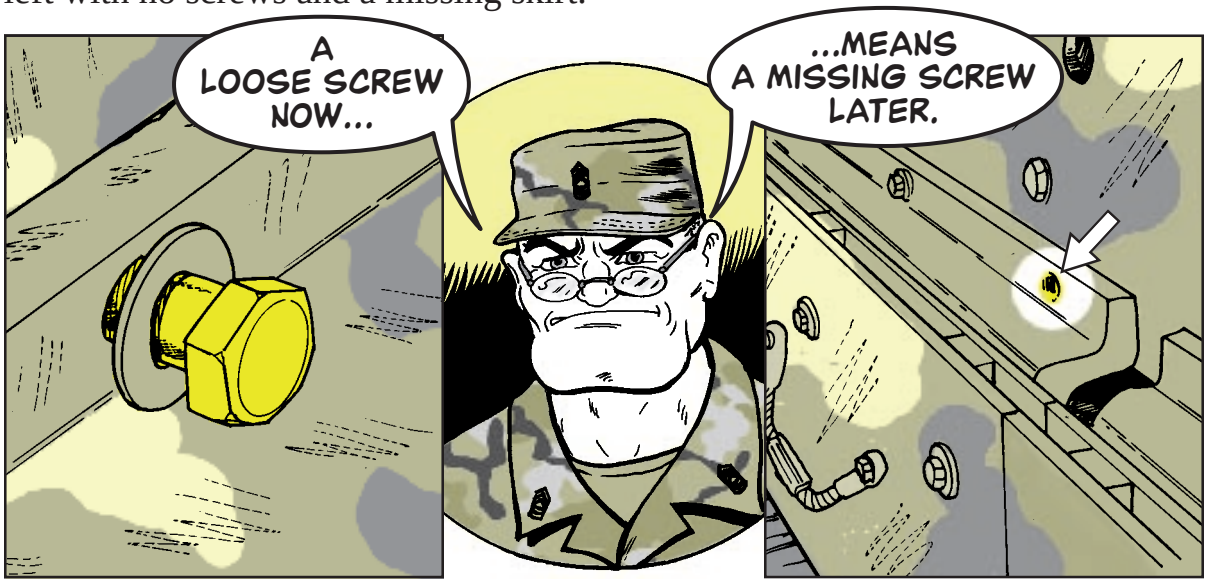


M2/M3-Series Bradley . . .

Keep Your Skirt On

Crewmen, don't underestimate the importance of using **every** skirt bracket screw, NSN 5305-00-724-7222, on your M2/M3-series Bradley.

Those skirts are **very** heavy. So, if even one of the three bracket screws vibrates loose, a lot of pressure is put on the remaining two. Pretty soon, you're left with no screws and a missing skirt.

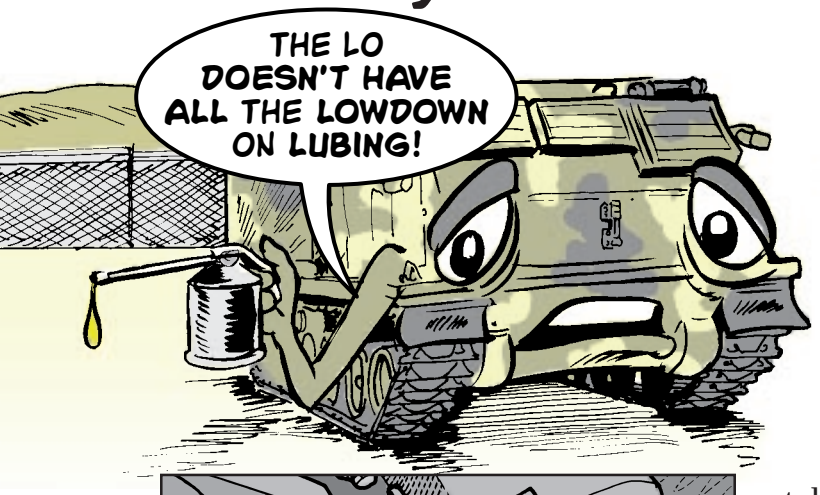


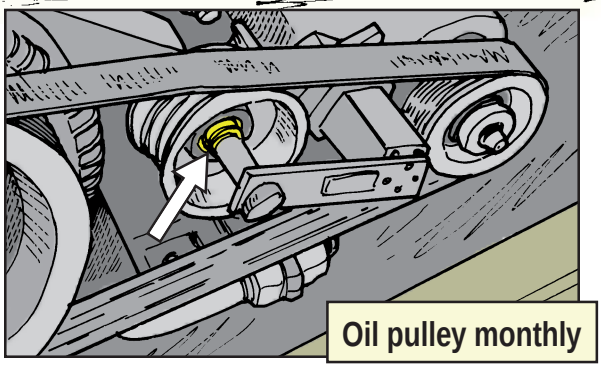
Eyeball the skirt bracket screws before and after every operation. If any are loose, tell your mechanic before they turn up missing.

He'll replace loose screws and torque the replacements to 151–166 lb-ft.

MLRS Carrier . . .

Pulley Needs Lubing, Too




Oil pulley monthly

Crewmen, LO 9-1450-646-12 doesn't cover everything on your MLRS that needs regular lubing. Some of it comes from experience.

One such spot is the idler tensioner pulley on the rear generator belt. Moisture from condensation, rain and regular washing gives rust a foothold on the pulley. If the pulley won't turn, the belt takes a real beating and will eventually snap.

Keep the rust at bay by giving the tensioner pulley a squirt or two of oil once a month. Not too much, though. Any extra oil should be wiped away to keep it off the belt.

M113-Series FOV . . .

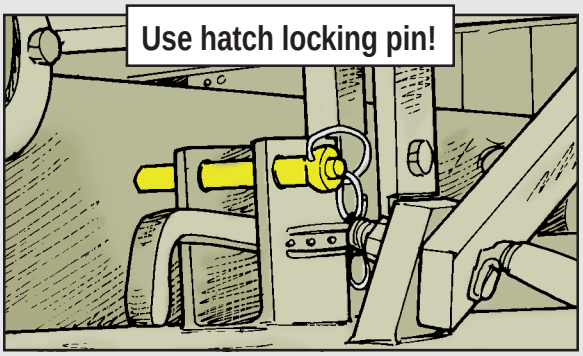
Avoid a Hatch-tastrophe!

Most crewmen eventually learn the lesson, even if it means a conk on the head: carrier hatches are too heavy to stay open on their own.

They'll come flying shut when your vehicle hits a big enough bump. You could end up losing your teeth, your fingers—even your life—if a hatch comes crashing down while you're in the way.

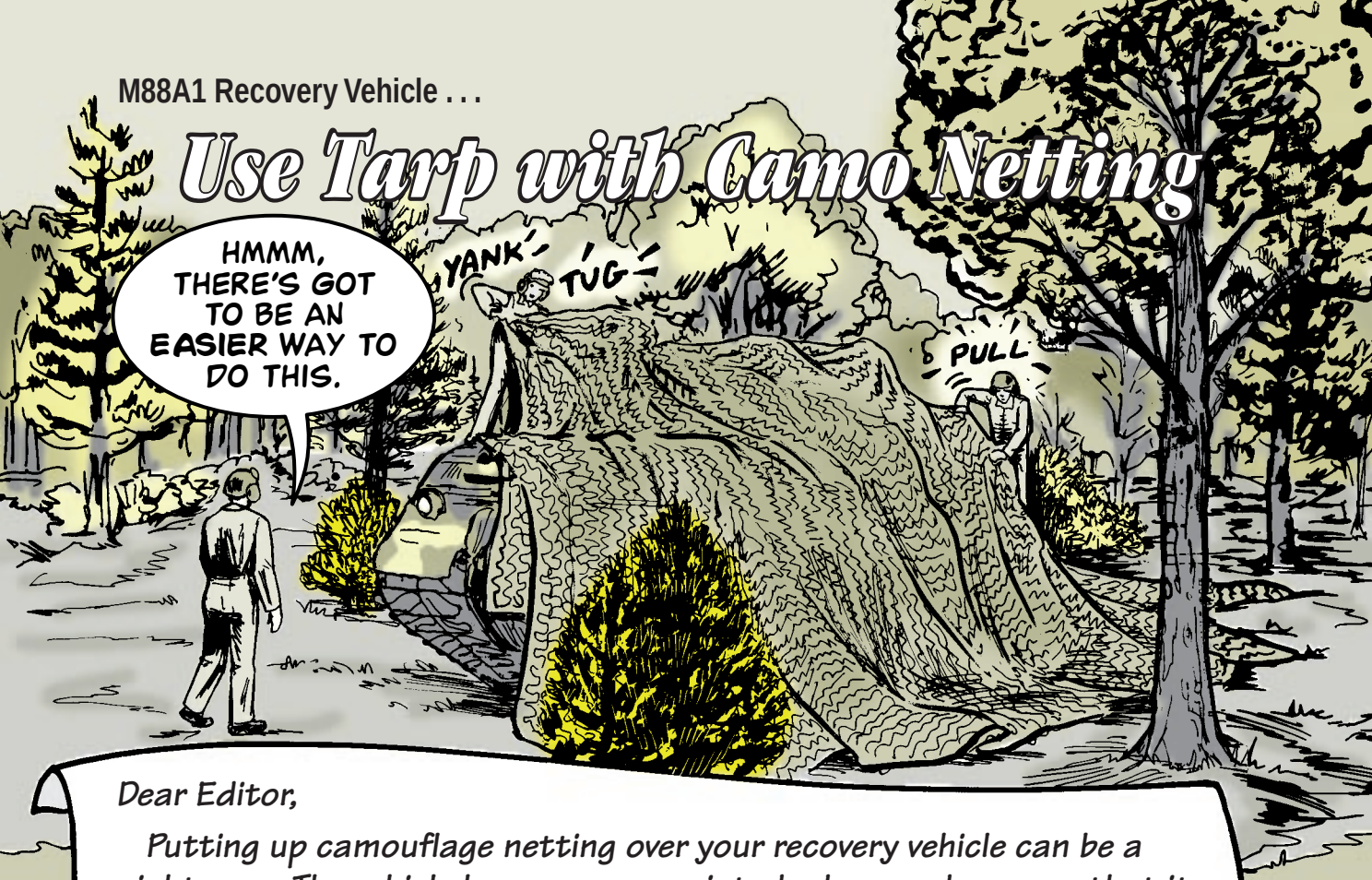
But it doesn't have to happen. It only takes a few seconds to stick the safety pin through the bracket to lock that hatch in place.

Play it safe. Lock open the hatches before moving out. If the locking pin's missing, have your mechanic install a new one. NSN 5315-01-266-6508 gets the pin used for all M113-series FOV except the M981 FISTV and M901 ITV. For these vehicles, the driver's hatch pin comes with NSN 5315-01-265-0528 and the gunner's hatch pin comes with the handle assembly, NSN 5340-01-240-7321.


Use hatch locking pin!

M88A1 Recovery Vehicle . . .

Use Tarp with Camo Netting



Dear Editor,

Putting up camouflage netting over your recovery vehicle can be a nightmare. The vehicle has so many pointed edges and corners that it takes forever to get the netting unsnagged and deployed.

There's a better way. First, stretch the 12x17-ft tarp from your BII over the vehicle. Then, unfold the camo netting over the tarp.

Because the tarp covers most of the problem edges, the netting doesn't snag. That makes it easy to get the netting up on spreader poles to cover the vehicle. Once the netting is up, I store the tarp.

When it's time to move to a new site, I spread the tarp on top of the vehicle again, remove the poles, and roll the netting and the tarp up together. The bundle goes in the basket on top of the vehicle where the tarp is normally kept.

At the new site, I unroll the tarp and netting together on top of the vehicle. Again, the tarp keeps the netting from getting hung up.

With this system, I can camouflage my vehicle in a matter of minutes rather than the hour or more it used to take.

SGT Kenneth Dovich
5/3d FA
Ft Sill, OK

FROM THE DESK OF THE Editor

In a battlefield situation, getting your vehicle camouflaged quickly can mean the difference between life and death. Good job!

Messes in a Bottle

Dear Editor:

Bleeding excess fluid from the Paladin's hydraulic reservoir can be a nasty, oily mess.

You need three hands to hold a container under the bleeder petcock while at the same time pushing the dipstick into the reservoir's bellows boss. And unless you're ready, fluid will squirt out of the petcock and all over the hydraulic compartment.

We use an AOAP bottle, NSN 8125-01-082-9697, and AOAP tubing, NSN 4720-00-964-1433, to help keep the mess under control. Here's the setup:

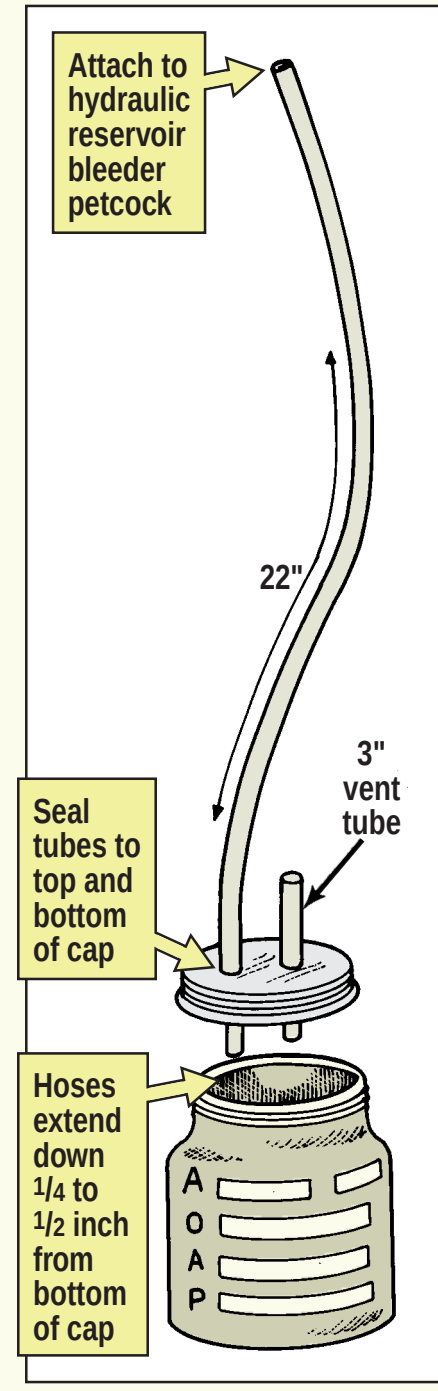
1. Punch two holes through the cap of the AOAP bottle with a scratch awl or something similar.

2. Cut a 3-in piece of AOAP tubing and stick it through one of the holes until 1/4 to 1/2 inch of the tubing extends from the bottom of the cap. This acts as the vent tube for the AOAP bottle.

3. Cut a 22-in piece of tubing and slip one end onto the bleeder petcock. The other end goes into the second hole in the AOAP bottle cap. Again, the tubing should extend about 1/4 to 1/2 inch from the bottom of the cap.

4. Seal both pieces of tubing to the cap with adhesive sealant, NSN 8040-00-455-5359.

When you're finished bleeding the system, detach the tubing from the bleeder petcock. Then unscrew the bottle and dispose of the fluid in a proper waste container.



SFC Jeff Wazelle
OMS #6, Kenosha, WI
WIARNG

FROM THE DESK OF THE Editor

Looks like you've got that messy problem bottled up! Good job!

It's in Your Best Interest

Money's tight, mechanics. So when it's time to turn in a line replaceable unit (LRU)—such as the M1A2 tank's gunner's control display panel or commander's integrated display make sure you package it properly.

Because so many LRUs are being damaged during shipment, the MSCs are reducing credit to **10 percent of the containerized unserviceable credit** for any LRU **not** shipped in a proper container.

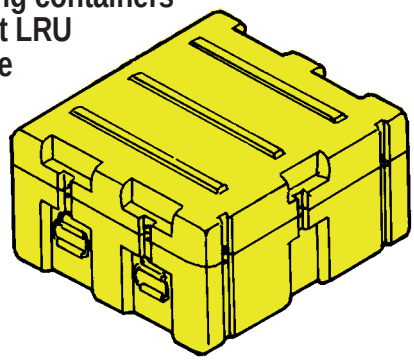
That means you **lose** 90 percent of the credit you would normally receive. You'll find this new policy in Para 11-3f of DA Pam 710-2-2 (30 Sep 98).

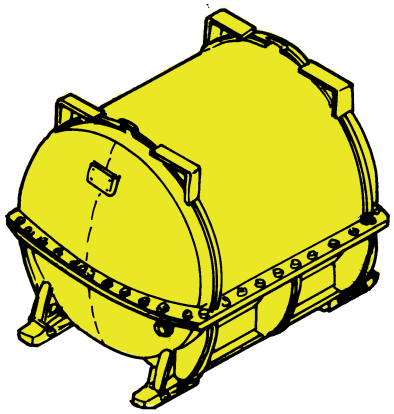
So keep your unit from losing these dollars. See your supervisor about adding the following procedure to your unit's maintenance SOP:

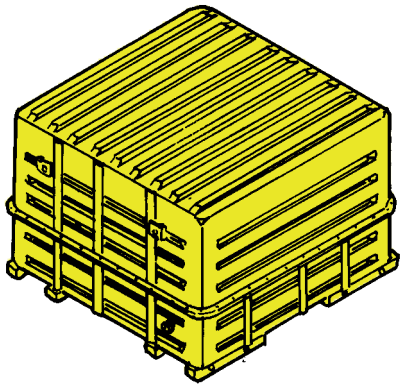
1. Before pulling an unserviceable LRU from an end item (M1-series tank, Bradley, etc.), first get a serviceable LRU from your supply support activity (SSA) as a temporary loan.
2. Take the good LRU in its container to the end item. Make the exchange, putting the unserviceable LRU into the container.
3. Take the unserviceable LRU to the SSA.

Using the right container prevents further damage to the LRU and ensures that your unit will get maximum credit for the unservicable LRU.

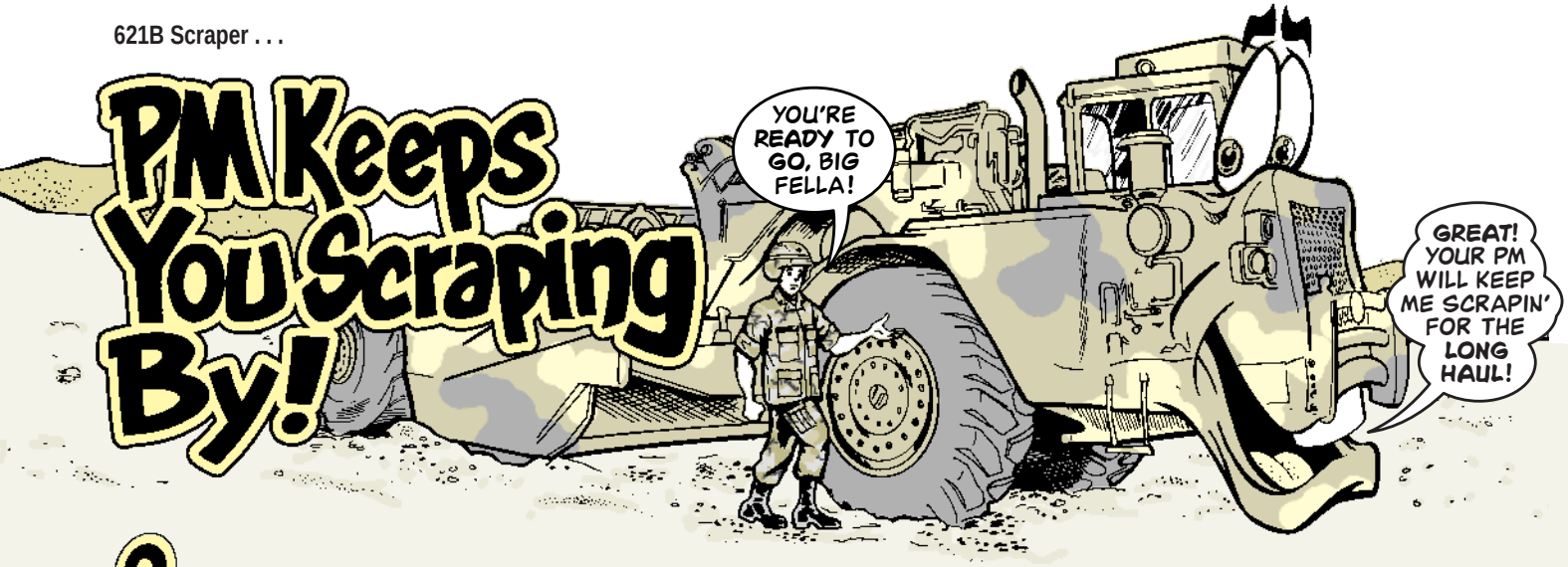
Shipping containers prevent LRU damage







PM Keeps You Scraping By!



Operators, that old 621B scraper has moved dirt like it's supposed to for a long time now. But, it'll go a lot longer if you stay on top of PMCS and keep it in shape.

After you follow the PMCS in TM 5-3805-248-14&P-1, go the extra mile with these PM tips.

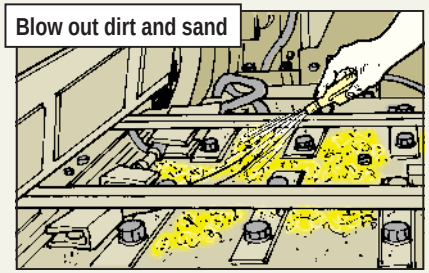
Keep Your Eye on PSI

Before you head out, gauge tire pressure. An underinflated front tire may slip on the rim, causing it to overheat and blow out. Or the tire-to-rim seal will break and the tire will go flat.

Battery Box Clean-up

Eyeball the battery box during your weekly PMCS. Dirt and sand will settle around the batteries.

When that stuff gets wet and packed in, the batteries are a bear for your mechanic to get out. So, blow out dirt and sand with compressed air.

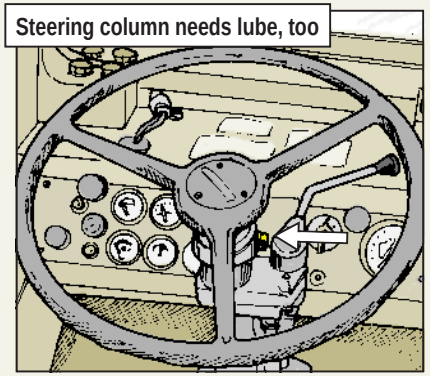


Snub No Grease Fitting

Even with power steering, that big dirt-moving rig is hard to steer. There are up to 33 tons of iron and dirt to move around.

One of the grease fittings often overlooked during lubing is the one that greases the shaft in the scraper's steering column. You'll know something's up when the steering starts to bind when you make a turn.

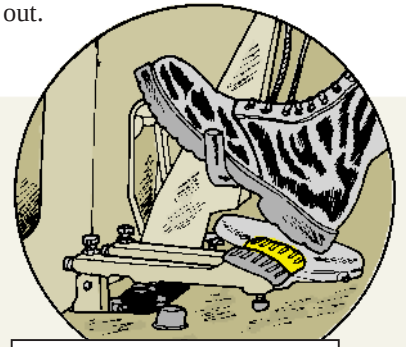
Give the fitting four or five pumps of grease during the 2,000-hour service or annual service, whichever comes first.



Differential Lock No-No

Using the scraper's footrest is a great idea—unless your left heel rests against the differential lockout. Any bump the scraper hits engages and disengages the differential. That overpressurizes the transmission and blows its internal differential seal. End result—your scraper is going nowhere!

So use the footrest, but keep your boot away from the differential lockout.

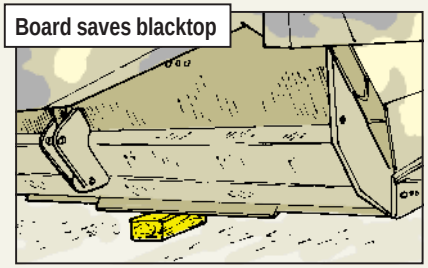


Keep heel off differential lockout

Moldboard Needs a Rest

Protect your motor pool blacktop when you park your scraper at the end of the day. When your scraper shuts down, the vehicle's hydraulic pressure is released. The weight of the moldboard rests on the ground—letting the cutting edge settle an inch or two into the blacktop. When it's time to get up and go, the blacktop gets ripped up.

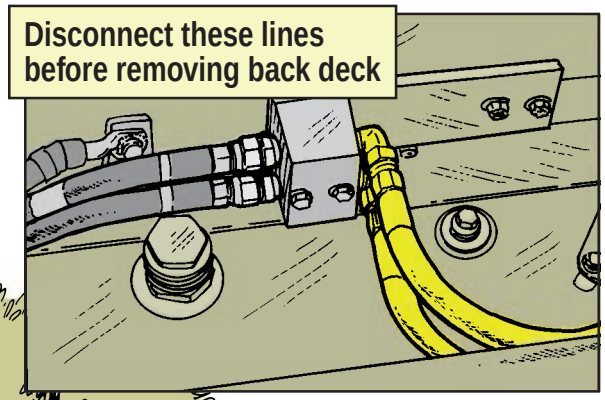
Prevent that damage by putting a 6x4-in or 4x4-in board between the blacktop and the vehicle's moldboard.



AVOID THE OILY MESS

Crewmen, remember to disconnect the two hydraulic lines from the holddown manifold when it's time to pull the back deck on your AVLB. If you don't, you'll end up with a messy oil spill.

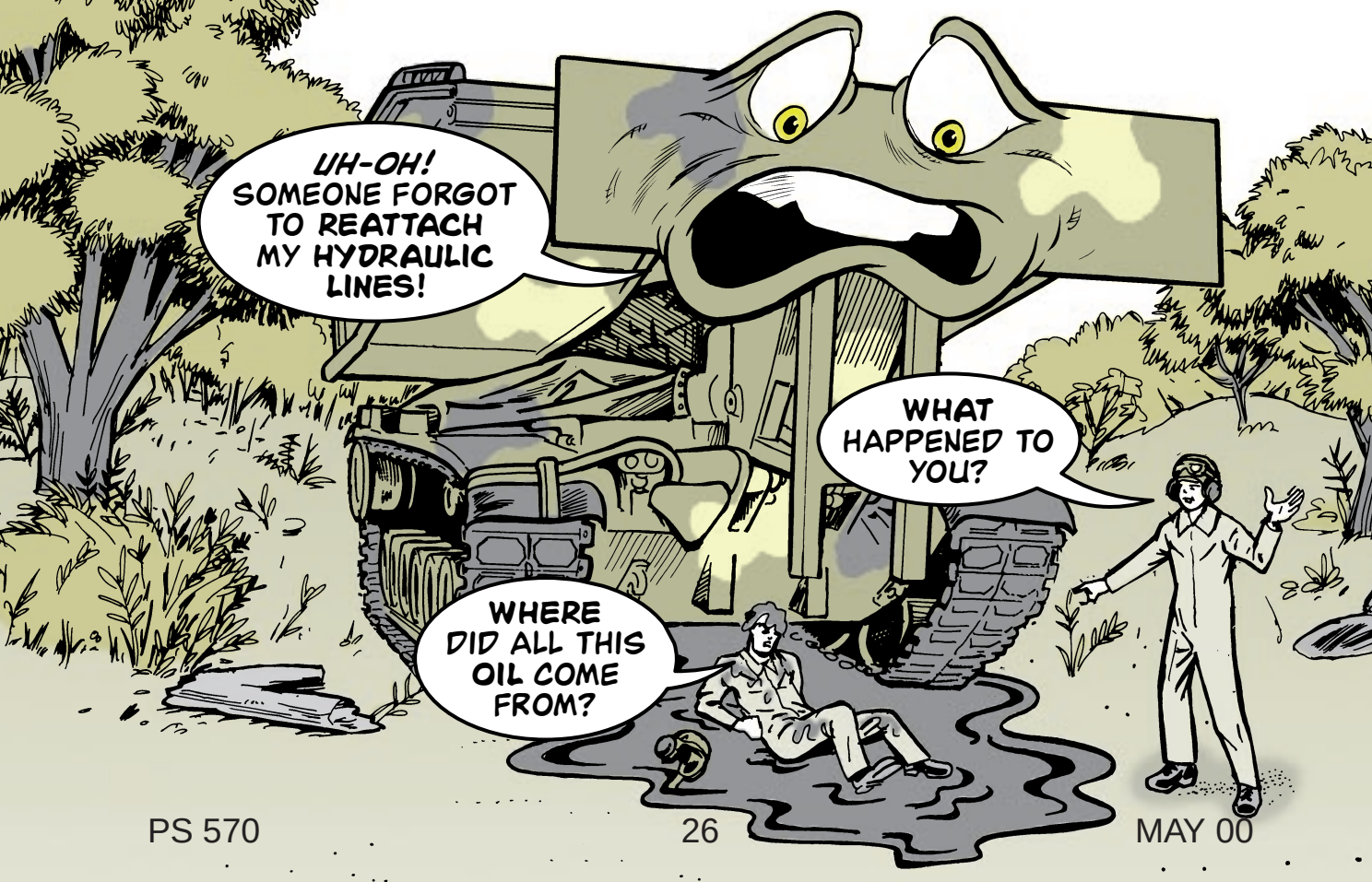
The procedures in TM 5-5420-227-24 (M48A5 chassis) or TM 5-5420-228-24 (M60A1 chassis) show how to pull the back deck. If you forget the procedures, the deck will disconnect those hydraulic lines for you.



And just because you remembered to disconnect the lines doesn't mean you're out of the woods. Forgetting to reattach the lines once the deck's back in place will get you into a heap of trouble, too.

The next time you use the bridge—most likely while you're in the field—hydraulic fluid is going to come out of those forgotten lines. And this time you won't have the concrete pad in the motor pool to help contain it.

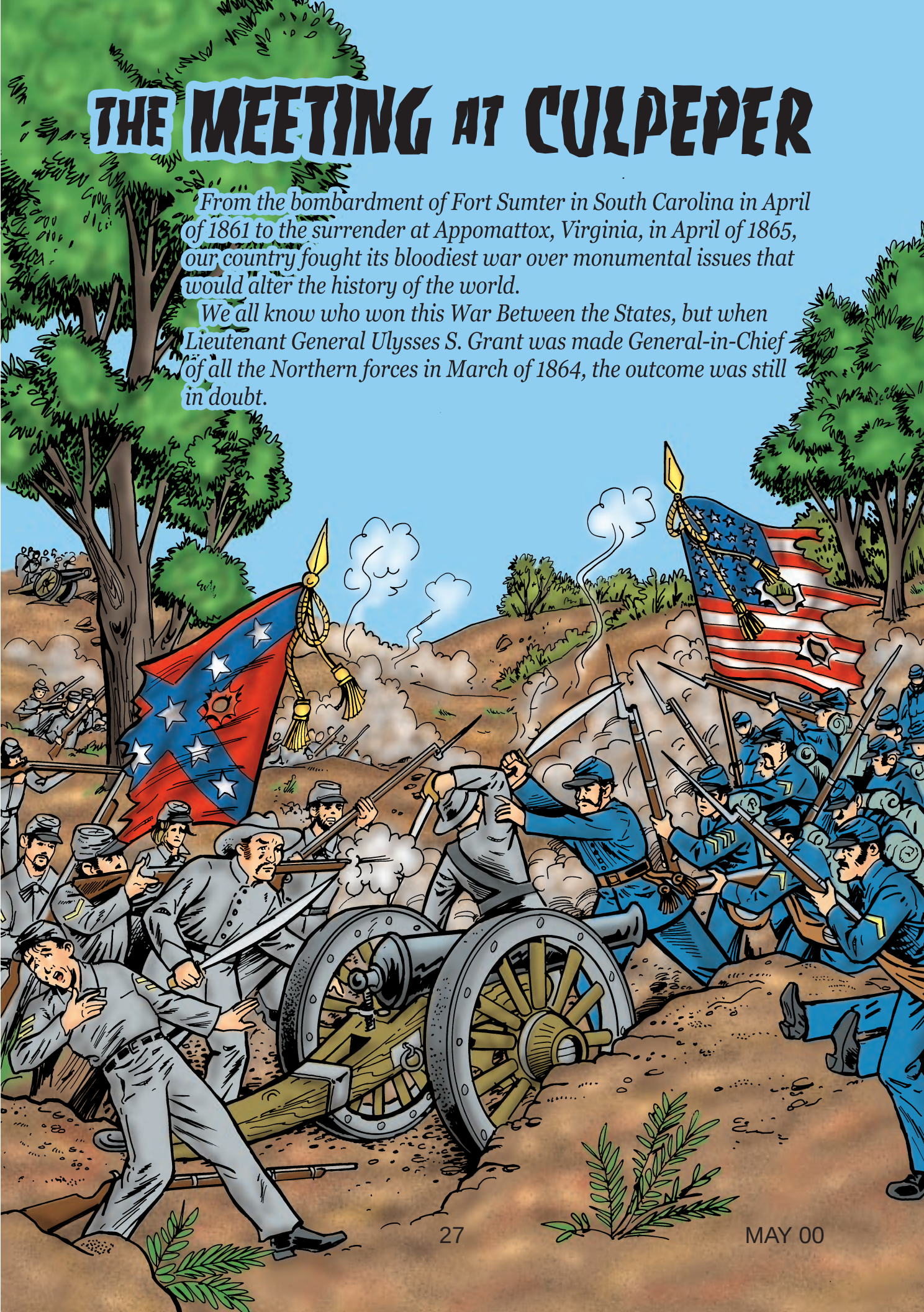
Do yourself a favor and remember to disconnect and reconnect those hydraulic lines.

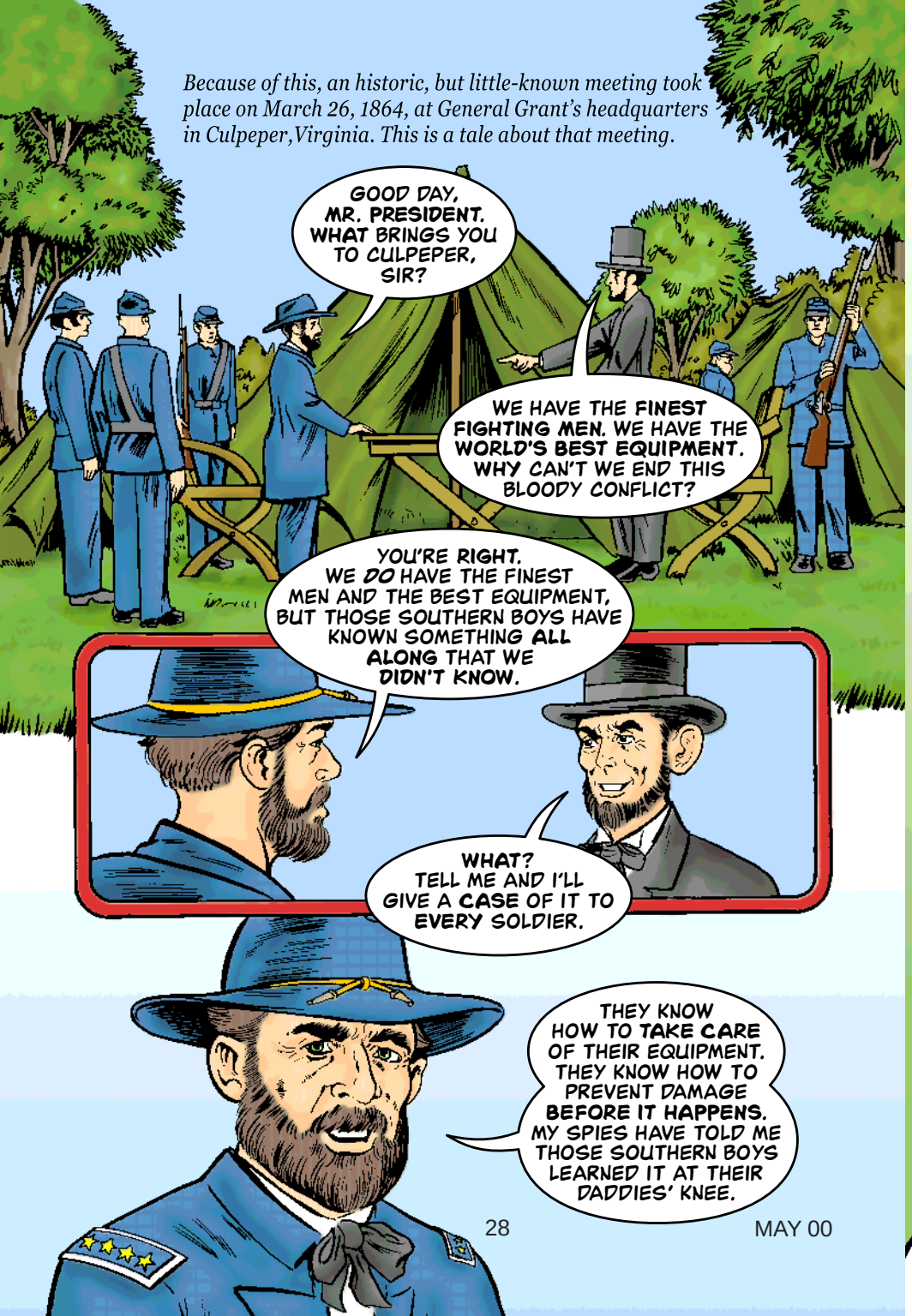


THE MEETING AT CULPEPER

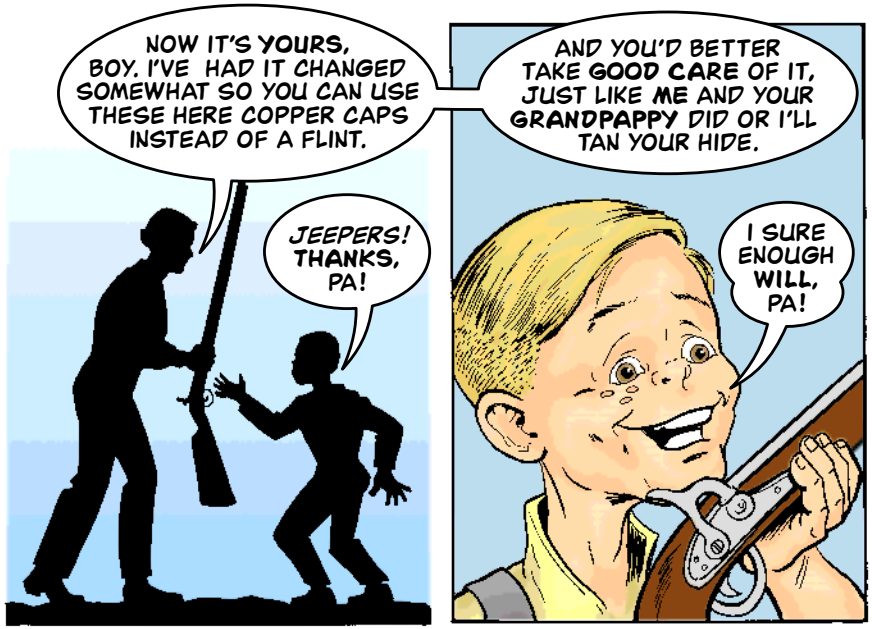
From the bombardment of Fort Sumter in South Carolina in April of 1861 to the surrender at Appomattox, Virginia, in April of 1865, our country fought its bloodiest war over monumental issues that would alter the history of the world.

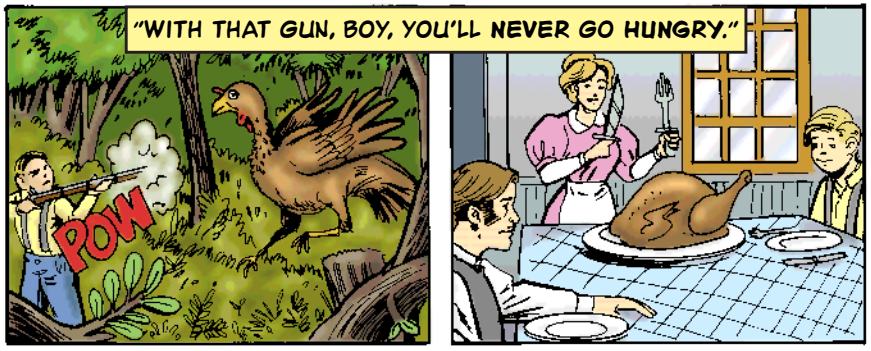
We all know who won this War Between the States, but when Lieutenant General Ulysses S. Grant was made General-in-Chief of all the Northern forces in March of 1864, the outcome was still in doubt.

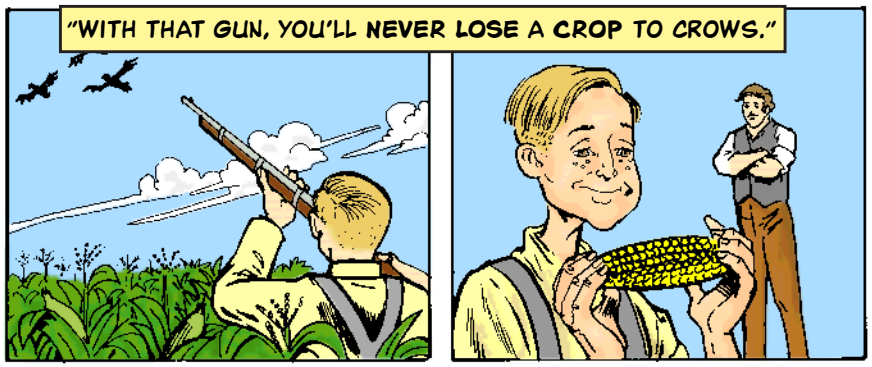



Because of this, an historic, but little-known meeting took place on March 26, 1864, at General Grant's headquarters in Culpeper, Virginia. This is a tale about that meeting.
GOOD DAY, MR. PRESIDENT. WHAT BRINGS YOU TO CULPEPER, SIR?
WE HAVE THE FINEST FIGHTING MEN. WE HAVE THE WORLD'S BEST EQUIPMENT. WHY CAN'T WE END THIS BLOODY CONFLICT?
YOU'RE RIGHT. WE DO HAVE THE FINEST MEN AND THE BEST EQUIPMENT, BUT THOSE SOUTHERN BOYS HAVE KNOWN SOMETHING ALL ALONG THAT WE DIDN'T KNOW.
WHAT? TELL ME AND I'LL GIVE A CASE OF IT TO EVERY SOLDIER.
THEY KNOW HOW TO TAKE CARE OF THEIR EQUIPMENT. THEY KNOW HOW TO PREVENT DAMAGE BEFORE IT HAPPENS. MY SPIES HAVE TOLD ME THOSE SOUTHERN BOYS LEARNED IT AT THEIR DADDIES' KNEE.

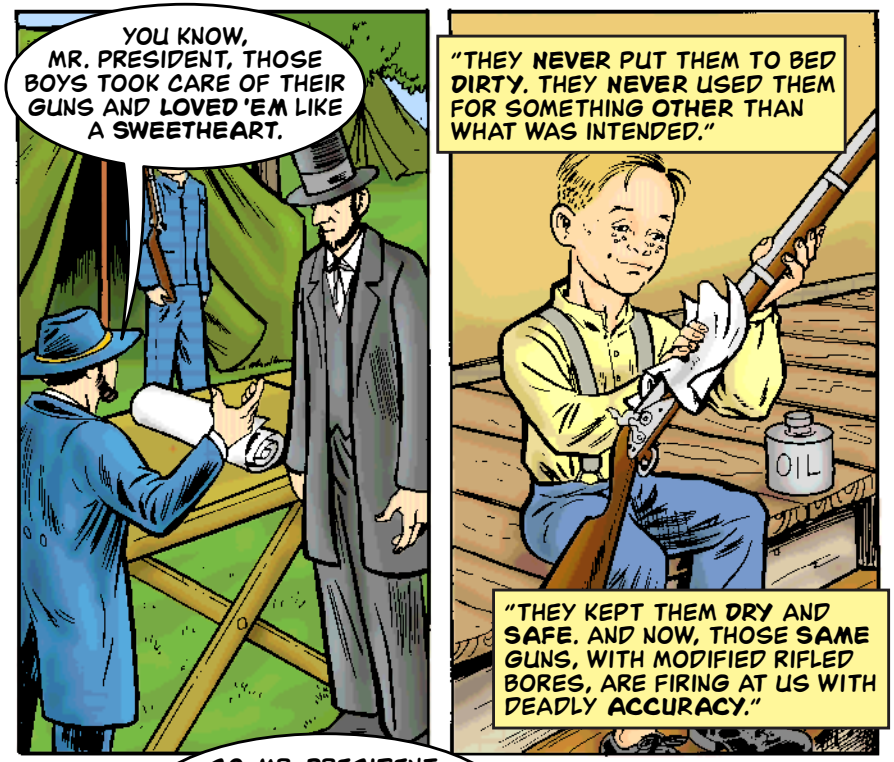

BOY, IT'S YOUR TENTH BIRTHDAY AND IT'S TIME YOU HAD YOUR OWN GUN. AND, SON, YOU'D BETTER TAKE CARE OF IT, IF YOU EXPECT IT TO TAKE CARE OF YOU. NOW THIS HERE GUN STARTED OUT AS A FLINTLOCK MUSKET. MY PAPPY–YOUR GRANDPAPPY–STARED DOWN THE BARREL OF THIS GUN AT OLD CORNWALLIS' TROOPS AT YORKTOWN, VIRGINIA IN 1781.
GRANDPAPPY TOLD ME ABOUT THAT. HE SAID THAT'S WHEN HE WON THE REVOLUTION!
YEAH, THAT'S RIGHT. THEN HE GAVE IT TO ME ON MY TENTH BIRTHDAY, AND I WASN'T MUCH OLDER WHEN I FIRED A ROUND OR TWO ON A COLD JANUARY DAY IN 1815 AT OLD PAKENHAM'S BRITISH. I STOOD SHOULDER TO SHOULDER THAT DAY WITH THE BEST PRESIDENT THIS COUNTRY EVER HAD, ANDY JACKSON. OLD PAKENHAM NEVER WALKED AWAY FROM THAT BATTLE. COULD BE BECAUSE OF THIS VERY GUN.


NOW IT'S YOURS, BOY. I'VE HAD IT CHANGED SOMEWHAT SO YOU CAN USE THESE HERE COPPER CAPS INSTEAD OF A FLINT.
JEEPERS! THANKS, PA!
AND YOU'D BETTER TAKE GOOD CARE OF IT, JUST LIKE ME AND YOUR GRANDPAPPY DID OR I'LL TAN YOUR HIDE.
I SURE ENOUGH WILL, PA!


"WITH THAT GUN, BOY, YOU'LL NEVER GO HUNGRY."
POW

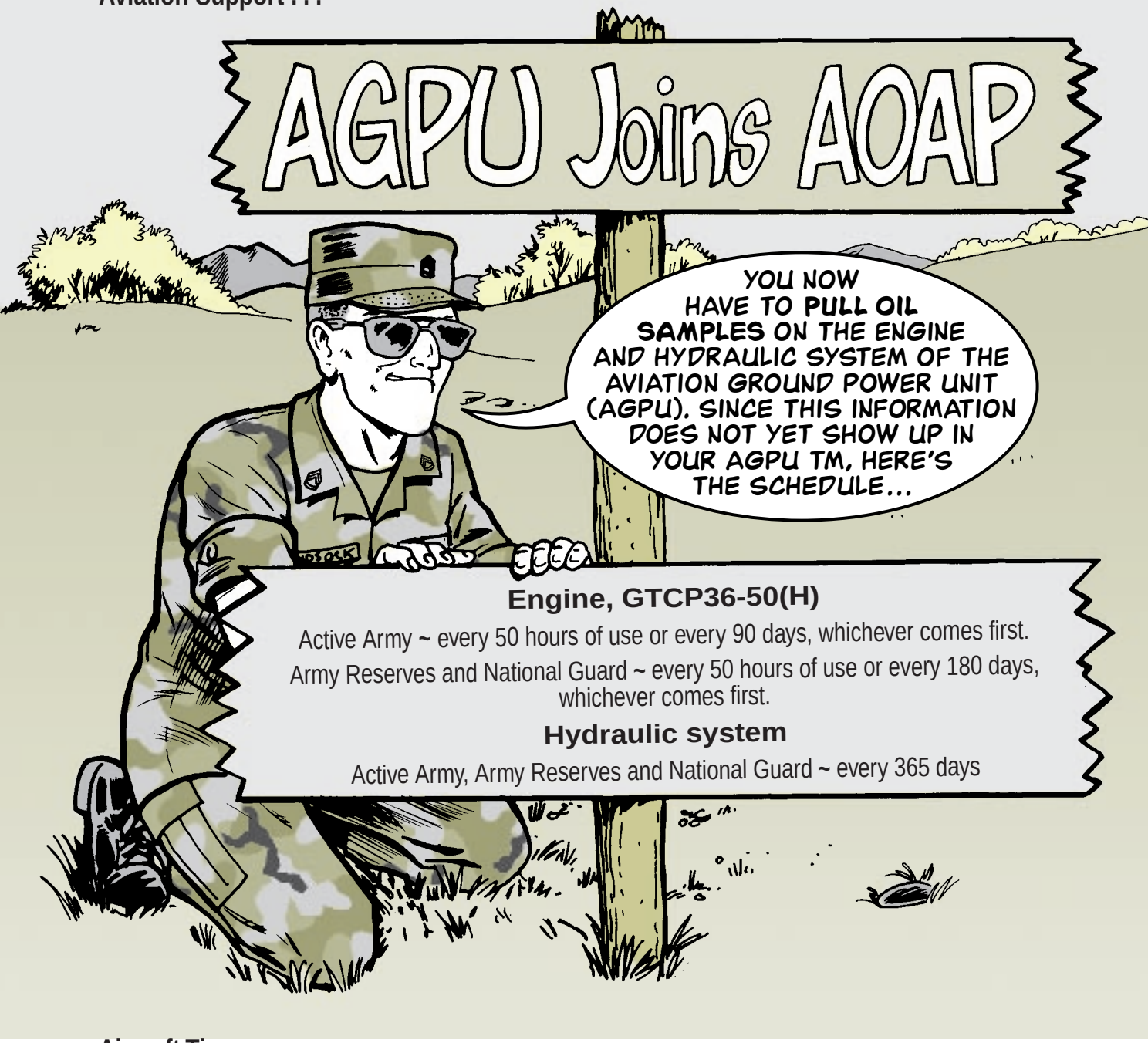

"WITH THAT GUN, YOU'LL NEVER LOSE A CROP TO CROWS."


"WITH THAT GUN, YOU'LL NEVER BE MAULED BY A MOUNTAIN LION...
...OR CLAWED BY A BEAR."
"AND SOMEDAY, WITH THAT GUN, YOU MIGHT BE CALLED UPON TO DEFEND OUR LAND JUST LIKE ME AND YOUR GRANDPAPPY."


YOU KNOW, MR. PRESIDENT, THOSE BOYS TOOK CARE OF THEIR GUNS AND LOVED 'EM LIKE A SWEETHEART.
"THEY NEVER PUT THEM TO BED DIRTY. THEY NEVER USED THEM FOR SOMETHING OTHER THAN WHAT WAS INTENDED."
OIL
"THEY KEPT THEM DRY AND SAFE. AND NOW, THOSE SAME GUNS, WITH MODIFIED RIFLED BORES, ARE FIRING AT US WITH DEADLY ACCURACY."
SO, MR. PRESIDENT, YOU ASK ME WHY THOSE SOUTHERN BOYS ARE STILL IN THE FIGHT. WELL, THEY GOT A LOT OF GRIT, BUT THEY ALSO KNOW HOW TO TAKE CARE OF THEIR GUNS.
HMMM, YOU MAKE A GOOD POINT, GENERAL GRANT.


I SEE NOW WE'VE BEEN DOING IT ALL WRONG. WE'VE BEEN FIXING OUR WEAPONS AFTER THEY BREAK, BUT THE TIME TO FIX A WEAPON IS BEFORE IT BREAKS. WE NEED TO MAINTAIN OUR WEAPONS AND PREVENT THE DAMAGE BEFORE IT STARTS.
THAT'S RIGHT, MR. PRESIDENT. I'VE GOT MY MEN WORKING ON THAT RIGHT NOW.


GENERAL GRANT, I THINK YOU'RE ON THE RIGHT TRACK TO END THIS WAR. THIS, UH, PREVENTIVE MAINTENANCE, THIS, UH, PM, SOUNDS LIKE JUST THE THING.
THANK YOU, MR. PRESIDENT. WE'LL PRESS FORWARD WITH PM. I'M SURE THE VICTORY WILL BE OURS!
PM? I LIKE THE SOUND OF THAT!



Cage That Tire—Then Inflate!

When you inflate an aircraft tire, make sure you use an approved tire cage. Otherwise, you risk injury or death if the tire explodes.

The Aviation and Missile Command (AMCOM) has approved only one cage, NSN 4910-01-459-7080, to use while inflating aviation tires.

In an **emergency**, AMCOM says you can make your own cage using the plans in Chap 7 of TM 55-2620-200-24. But follow the instructions **exactly**. That means take no shortcuts, comply with welding requirements and use only approved materials.

Build a FOD Station

FOD is a problem all the time. FOD cans are a problem only when you can't find one, or when it's been blown over by the wind and is rolling around the airfield.

You can overcome these problems by making your own FOD stations that won't blow over, that double as temporary storage for contaminated fuel and that are a fire extinguisher point. Here's how:

Start with an empty 55-gal oil drum. Cut off the top with a drum cutter, NSN 4910-00-478-6982. Never use a cutting torch to remove the top because the torch could start a fire.

Clean the inside of the drum with cleaning solvent.

Then, mix up about half of an 80-lb bag of pre-mixed concrete, NSN 5610-00-985-1800, and put it in the bottom of the drum. Tilt the drum slightly while the concrete hardens.

After the concrete hardens, drill a few drainage holes just above the low side of the concrete. That will keep the water from collecting in the drum.

Next, add a receptacle cover, NSN 7240-00-783-1044. Install the cover's access door so that it must be lifted to open—that makes it easier to insert and remove things from the container.

Paint a 5-gal military fuel can yellow and mark it "CONTAMINATED FUEL." Put it inside the FOD station. You can store fuel test samples in it for disposal later.

Use an old, topless 5-gal oil can to hold FOD junk. You should mark it "FOD" and store it inside the FOD station beside the contaminated fuel can. The FOD junk stays inside the can even if you fill it to overflowing.

You can get a 20-lb dry chemical fire extinguisher with NSN 4210-00-257-5343. It comes with its own mounting bracket that can be attached to the side of the FOD drum. Secure the fire extinguisher in the bracket and mark the outside of the drum with FOD FIRE POINT.

Your FOD station and fire point is ready for use. It is heavy enough so it won't blow over and has a removable FOD container that can be taken out on the flight line to pick up FOD junk.

PS 570

Hellfire Salvation

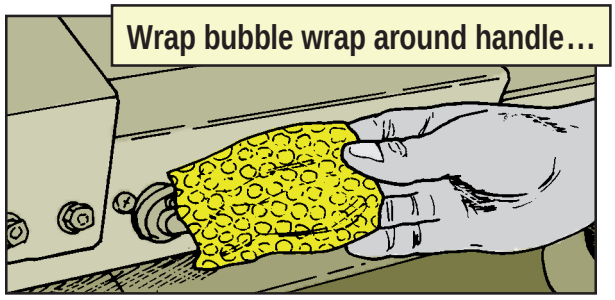
Dear Editor,

A little bubble wrap and a sports drink bottle cap can save your Hellfire launcher from damage.

Use bubble wrap to wrap locking handles. Anybody who works around a Hellfire hangar very long knows the missile system's most vulnerable parts are the launcher locking handles. It doesn't take much of a knock to break off a handle. Then you can't lock down the missiles.

Bubble wrap provides enough cushion to prevent most damage. Whenever the launcher is being transported or stored, wrap bubble wrap first around the handle and then around the handle and rail. Tape the bubble wrap in place.

Wrap bubble wrap around handle…



…and then around handle and rail

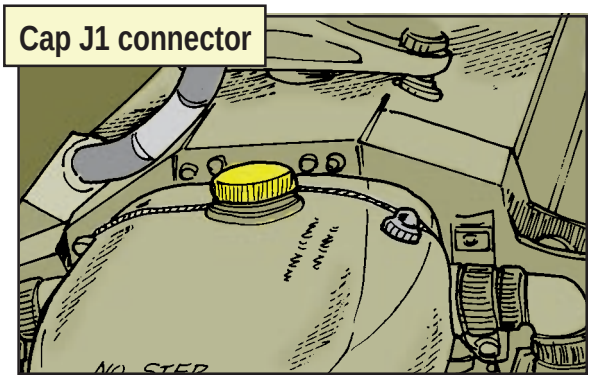
Of course, nothing will protect the locking handles if you don't show a little care. Keep your feet off the handles and use at least two people to remove or install the launcher. Four people would be best. The launcher is too heavy for one person to safely maneuver.

Use a sports drink bottle cap on the J1 connector. When you train with MILES, the P511 harness to the launcher's J1 connector is left disconnected. If the J1 is left uncovered, dirt and moisture get in the connector and lead to corrosion and a poor electrical connection.

A great way to seal out problems is to screw a cap from a wide-mouth sports drink bottle on the J1. The cap stays tight even during flight.

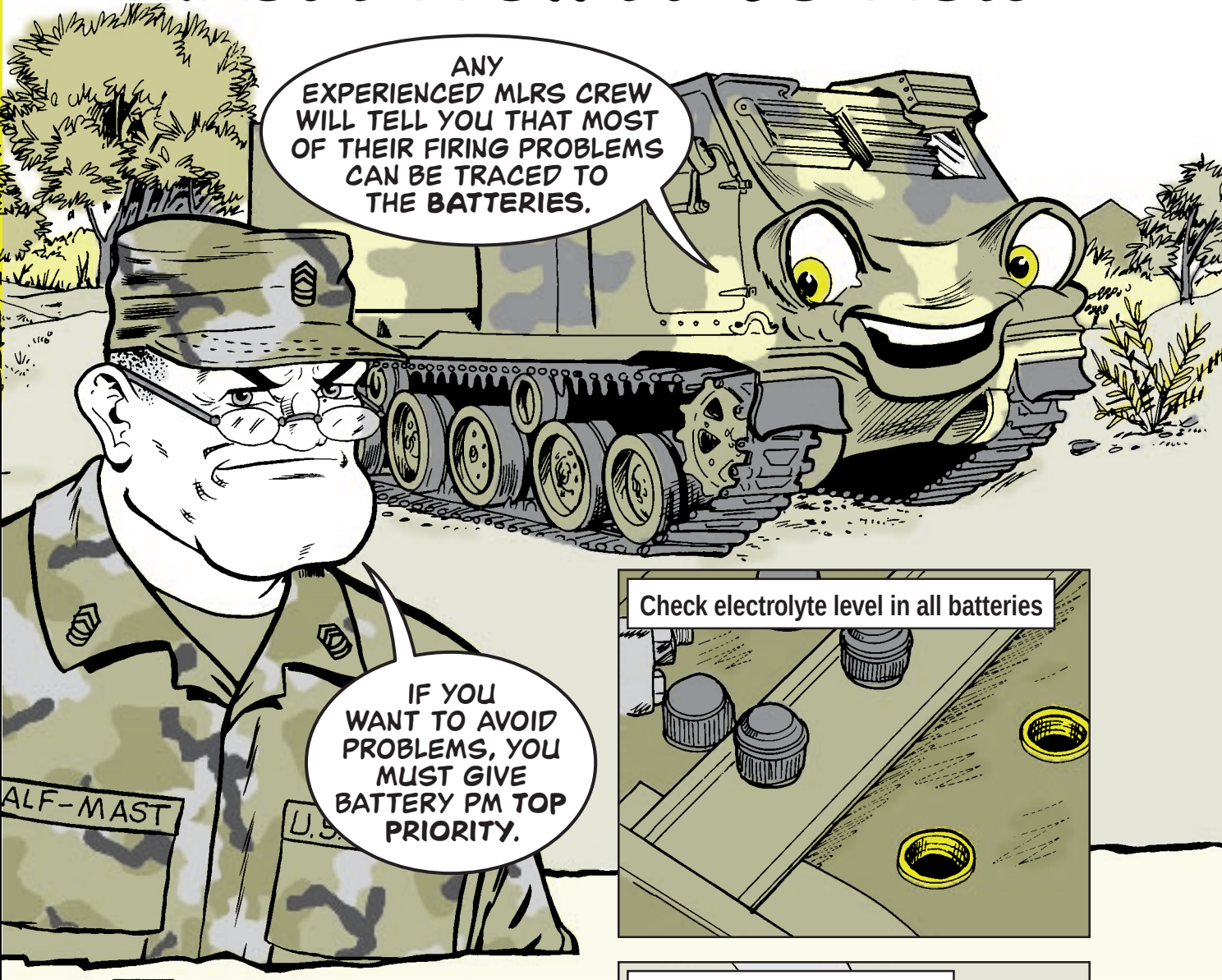
SGT Scott O'Dell
D Co, 1/229th Attack Regiment
Ft Bragg, NC

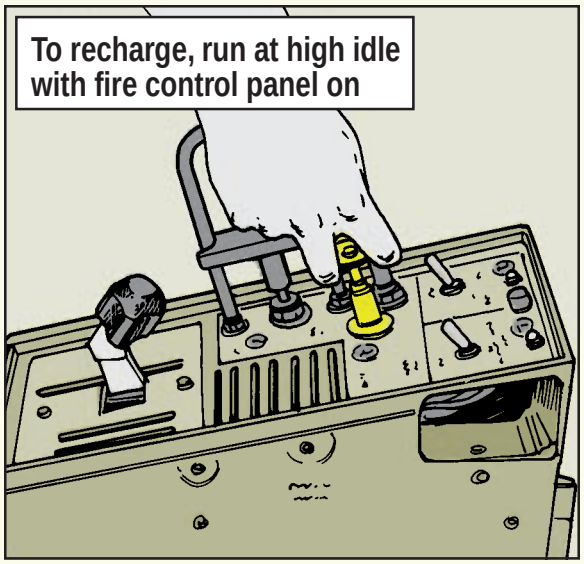
Cap J1 connector



SEAL OF Editor's APPROVAL

More Power to You



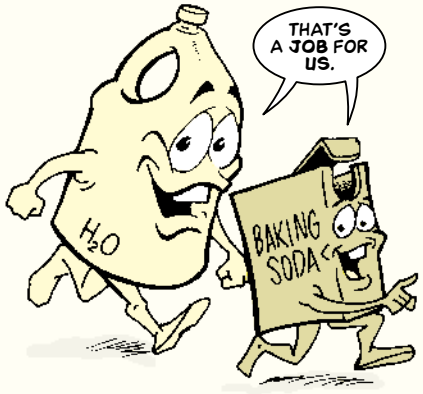


Here's how to get more power for you and your MLRS.

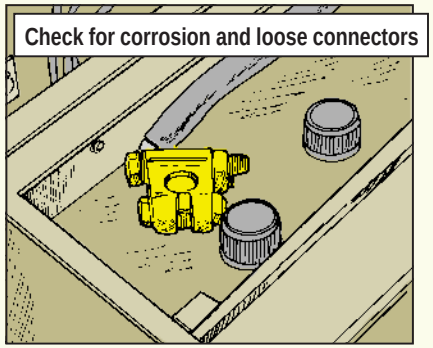
PMCS

Before you go to the field, check the electrolyte level in all battery cells. If any are low, tell your mechanic so he can add distilled water. Once it's added, run the engine at high idle—1,200 to 1,400 rpm—for 15–20 minutes with the fire control panel turned on to re-charge the batteries.

Then look for corrosion around the battery terminals and clamps. Your mechanic can clean away corrosion with a mixture of baking soda and water.

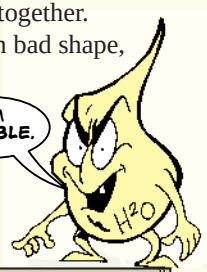


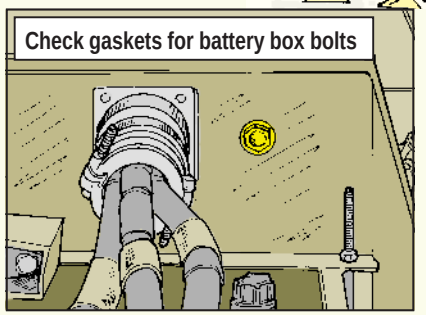
Gently tug at the battery post connections to see if they are loose. Get your mechanic to tighten loose connections.



If new batteries have been installed, don't assume they're fully charged. Run the engine at high idle for 15–20 minutes with the fire control panel in the ON position to charge them.

Check the gaskets that go around the eight bolts that hold the battery and electronics boxes together. If they're missing or in bad shape, water can get in both boxes and cause corrosion and electrical problems. Report gasket problems.

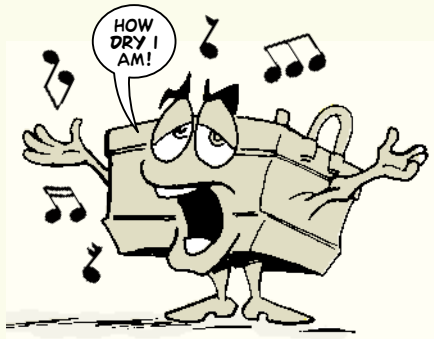




In the Field

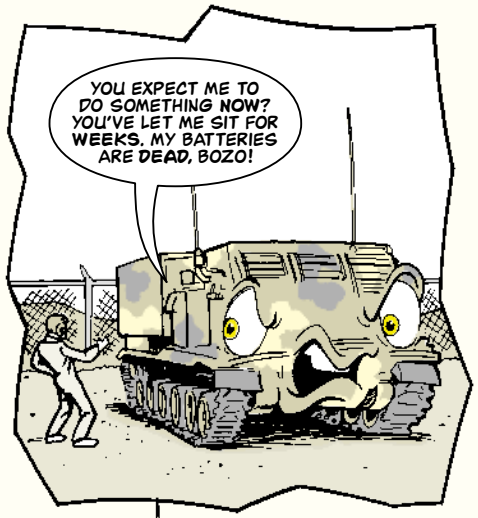
The launcher/loader module (LLM) can operate on battery power alone for only 20 minutes. So operate the LLM with the engine running at high idle as much as possible. That'll provide enough juice to recharge the batteries and run the LLM.

Check the batteries' electrolyte level daily. Operating with such a high load requirement can dry out the batteries.

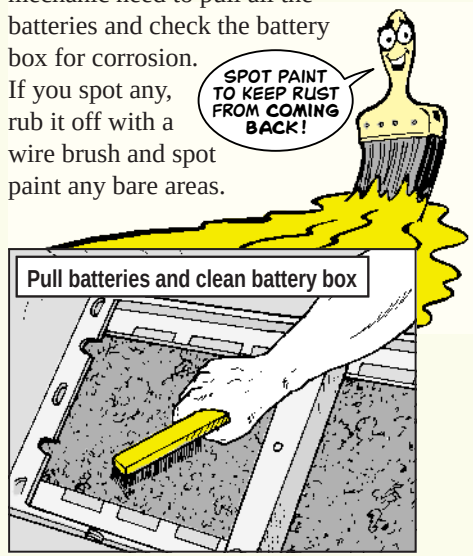


In the Motor Pool

Don't let your MLRS sit idle for long periods. Weekly, run the engine at high idle for 30 minutes with the fire control panel in the ON position to charge the batteries.

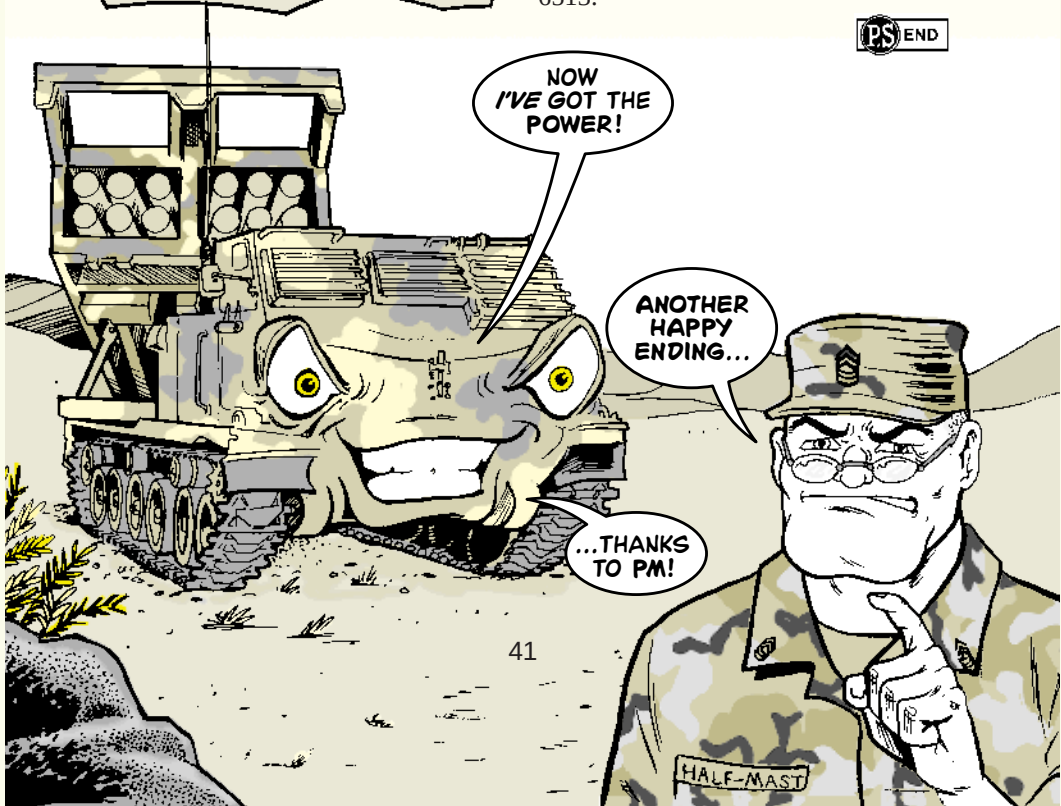


Every 6 months, you and your mechanic need to pull all the batteries and check the battery box for corrosion. If you spot any, rub it off with a wire brush and spot paint any bare areas.



Coat the box with corrosion preventive compound, NSN 8030-01-134-6513.

PS END



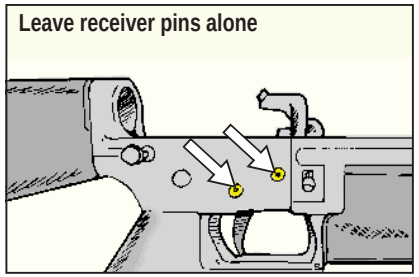
Do Your Job... but No More!

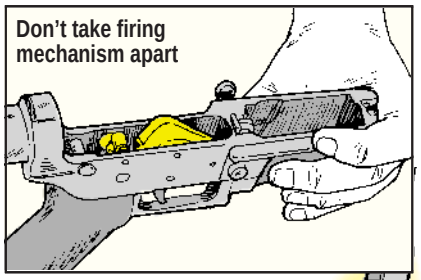
Your M16A2 rifle or M4A1 carbine is the best friend you'll have in battle. It will do its job to protect you if you do your PM job to protect it. But your job stops with the PMCS in TM 9-1005-319-10.

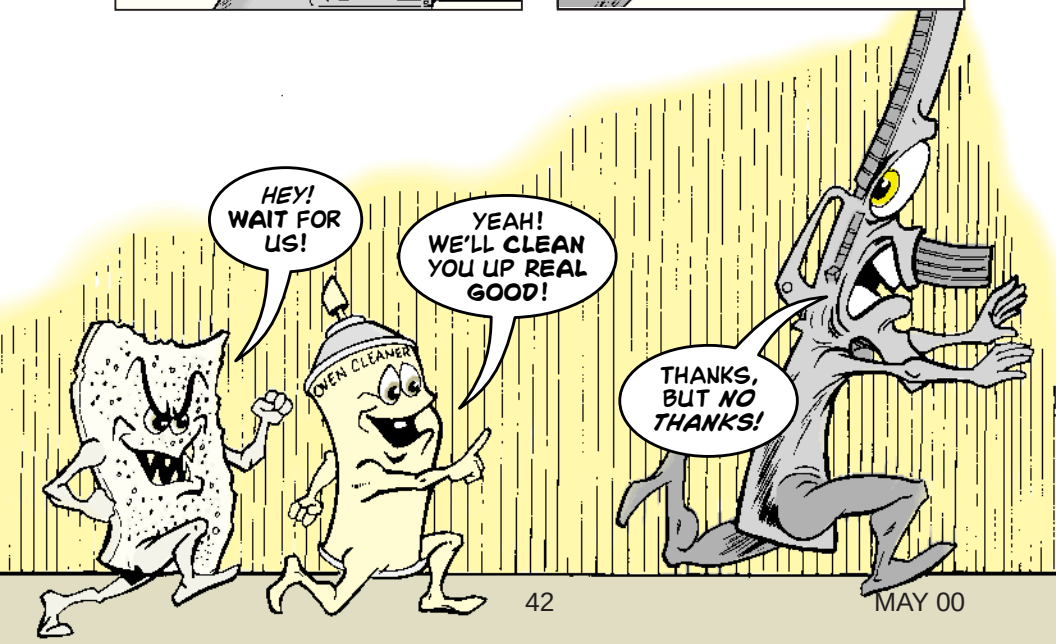
That's the problem. Some soldiers want to do more than their job. They want to do the armorer's job and sometimes even support's job. The results aren't pretty. For example…

Some soldiers disassemble the lower receiver and trigger assembly for better cleaning.

If you continually push out the lower receiver pins, you enlarge the receiver holes. The holes can't hold the pins and the weapon is ruined. If the trigger assembly is put together wrong, the weapon fires automatic when it's not supposed to. That's dangerous.

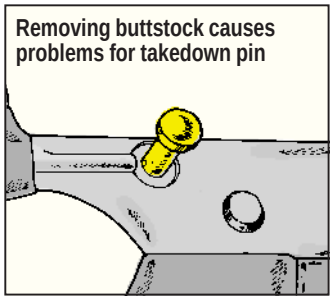






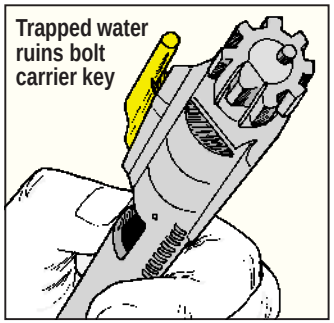
Some soldiers remove the buttstock to clean the lower receiver extension.

The takedown pin spring is easily damaged and difficult to install correctly. If the spring and detent are not put back in right, the takedown pin won't lock in and your weapon won't stay together. You could also loosen the lower receiver extension, which could let the buffer detent and spring pop free. That could cause your weapon to lock up.



Some soldiers remove the compensator to clean the barrel.

The compensator must be torqued just right. If it's screwed on too tight, the barrel threads—and barrel—are ruined. If it's too loose, it can vibrate off.

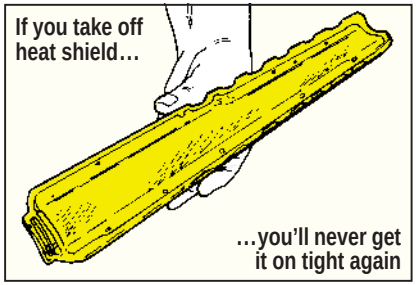


Some soldiers give their M16 or M4 a bath.

Water trapped in tight places corrodes metal parts like the carrier key, forward assist spring, trigger spring, hammer spring and sear spring.

Some soldiers use stuff like oven or toilet bowl cleaners or homemade cleaning tools on their weapon.

These things will get your rifle or carbine wonderfully clean, but also take off its protective finish and ruin the barrel grooves. Soon your weapon is junk.

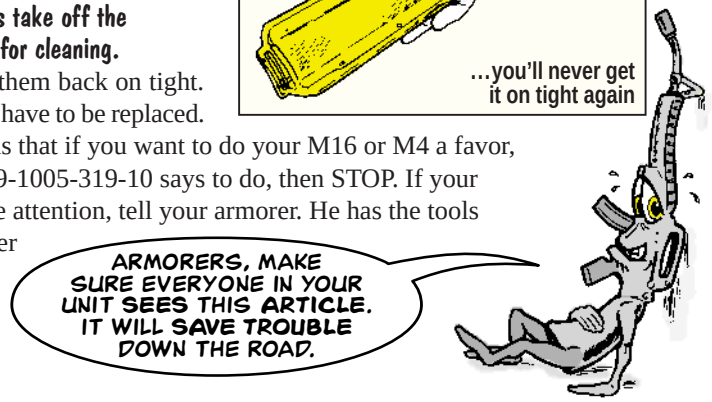


Some soldiers take off the heat shields for cleaning.

You'll never get them back on tight. They will rattle and have to be replaced.

The bottom line is that if you want to do your M16 or M4 a favor, do everything TM 9-1005-319-10 says to do, then STOP. If your weapon needs more attention, tell your armorer. He has the tools and training to either fix it or get it to support.

PS 570



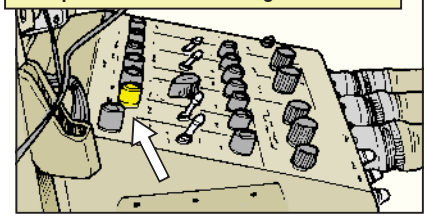
Smokin' with Your M56

As you and your new M56 smoke generator get acquainted, there are a few things you can do to smooth your smoking.

Keep It Fueled

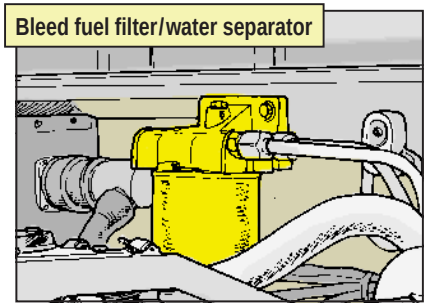
Pay attention to the fuel. There is no fuel gauge, so you must keep an eye on the fuel warning light on the control panel. Once it lights up, you have only 5–10 minutes worth of fuel left. Stop smoking immediately if at all possible and fill the fuel tank.

Fill up ASAP when FUEL light comes on



If you let the M56 run dry, air gets in the fuel lines. To get it out and start smoking again, you must bleed any air from the fuel lines and the fuel filter/water separator after you refill the tank. See Para 3-13 in TM 3-1040-282-10 for the procedure.

Bleed fuel filter/water separator

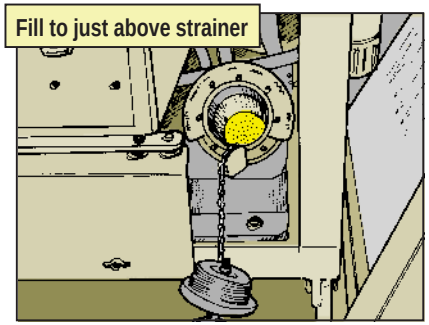


Even then, you still may have trouble re-starting.

So always fill the tank at the beginning of operations—but don't overfill it. Heat expands fuel and that can lead to leaks. Fill the tank only until the fuel is just above the strainer.

A full tank will last about 2 hours.

Fill to just above strainer

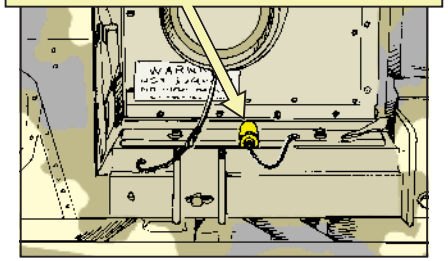


Keep It Dry

Water can short out the engine's electrical components and lead to corrosion. So keep the engine compartment turbine enclosure covered with the M56's tarp when the generator's sitting for long. If water's getting into the enclosure, it's probably because the lid isn't sealing properly. Your support can adjust the lid hinges to stop leaks. Be careful not to spray water into the enclosure's intake vents when you wash the M56.

Check the bottom of the engine enclosure for water after a rain or washing. If water gets in the engine compartment, drain it by removing the drain plug at the bottom rear of the enclosure.

Pull plug to drain engine compartment water

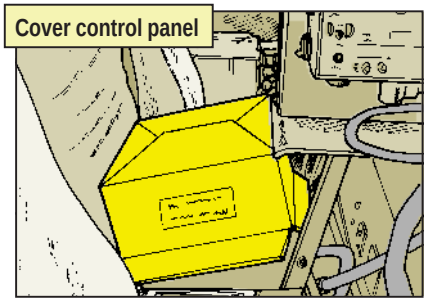


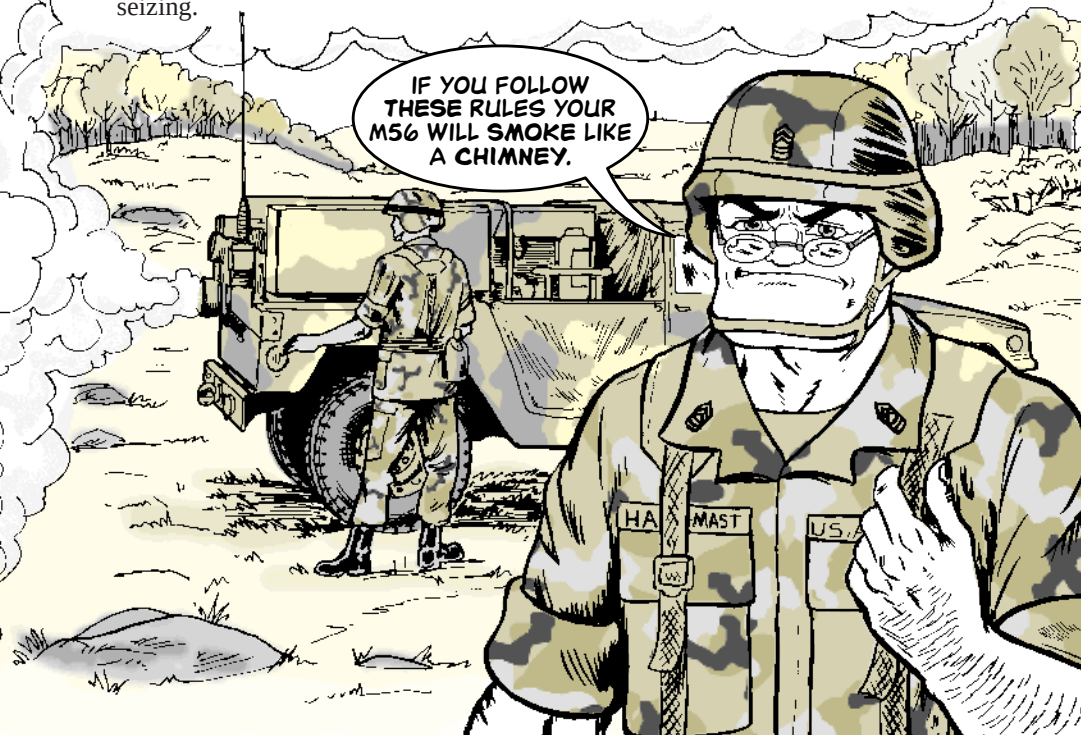
Also keep water away from the IR ejector. If water gets down the IR transport hose into the grinder, it can lead to corrosion that causes the grinder to seize.

Keep your feet off the fog oil pump motor, too. That breaks the seal around the electrical connector, which lets water into the pump motor and leads to seizing.

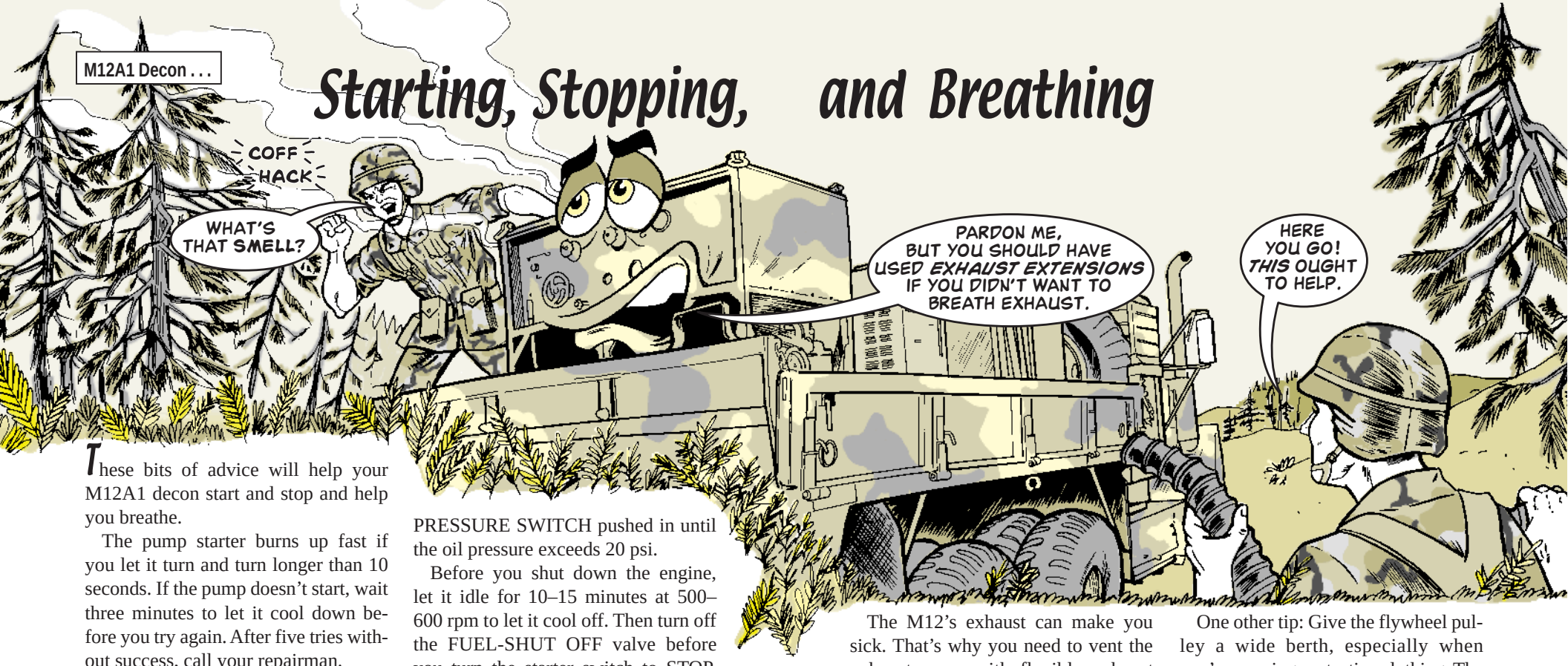
Finally, don't toss stuff like helmets into the cab of the truck. It doesn't take much of a hit to break the toggle switches on the control panel. If it's a problem in your unit, find a cardboard box that fits over the control panel and keep the box on the panel when you're not operating. That will protect the switches.

Cover control panel



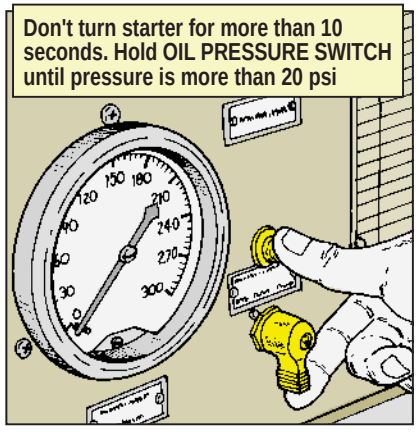


Starting, Stopping, and Breathing



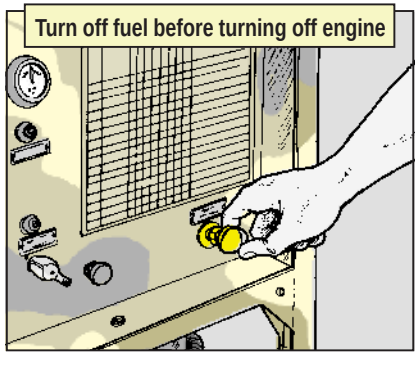
These bits of advice will help your M12A1 decon start and stop and help you breathe.

The pump starter burns up fast if you let it turn and turn longer than 10 seconds. If the pump doesn't start, wait three minutes to let it cool down before you try again. After five tries without success, call your repairman.

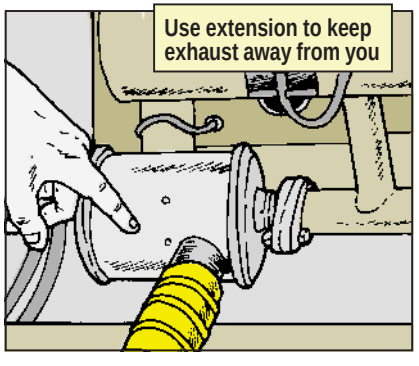


As soon as the engine catches, release the starter but keep the OIL PRESSURE SWITCH pushed in until the oil pressure exceeds 20 psi.

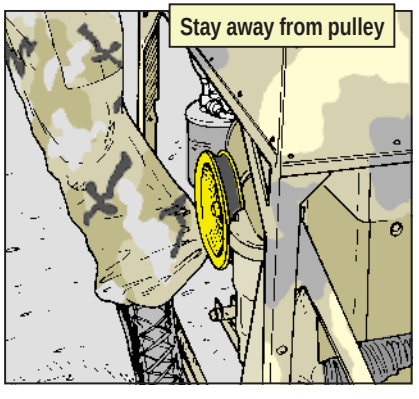
Before you shut down the engine, let it idle for 10–15 minutes at 500–600 rpm to let it cool off. Then turn off the FUEL-SHUT OFF valve before you turn the starter switch to STOP. Otherwise, fuel will run into the carburetor. The next time you crank the engine, it may not start and could even backfire, which is dangerous.



The M12's exhaust can make you sick. That's why you need to vent the exhaust away with flexible exhaust extensions, NSN 2990-00-994-0827. Until they come in, a good substitute is the 1 3/4-in diameter extension used in most truck motor pools.

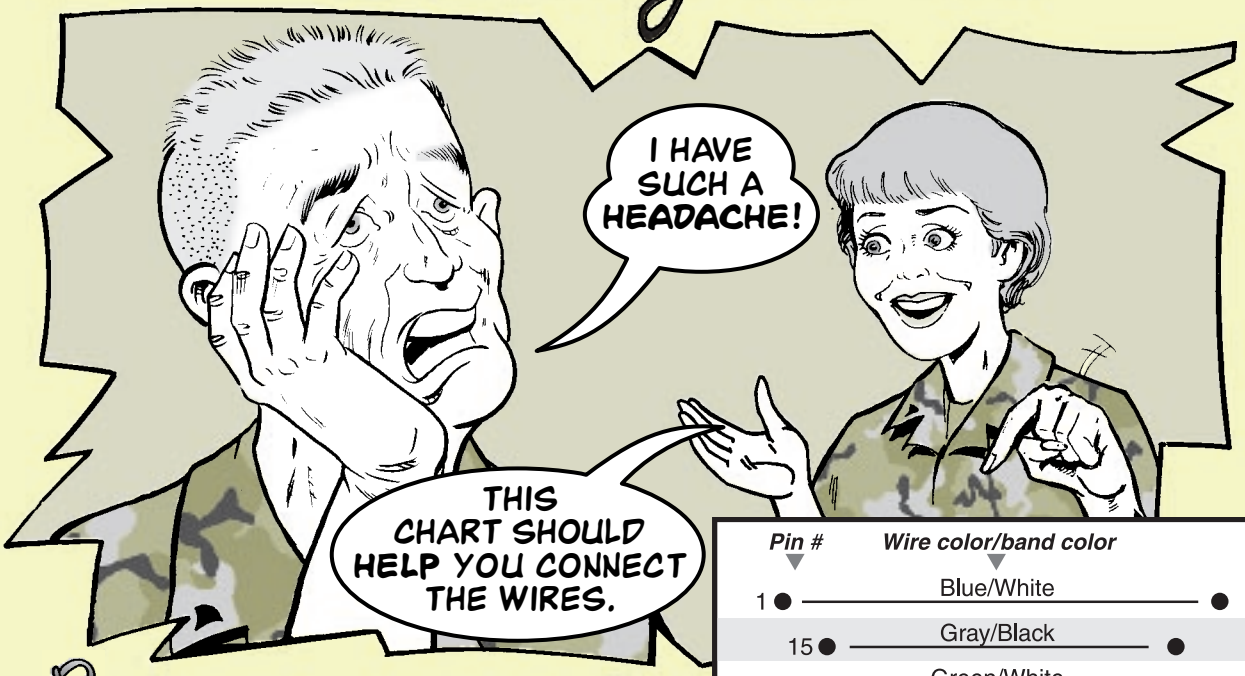


One other tip: Give the flywheel pulley a wide berth, especially when you're wearing protective clothing. The pulley turns at 3,800 rpm. If it catches your pants leg, it'll rip the fabric and then your chemical protection is gone.



26-Pair Cable . . .

Getting Wired



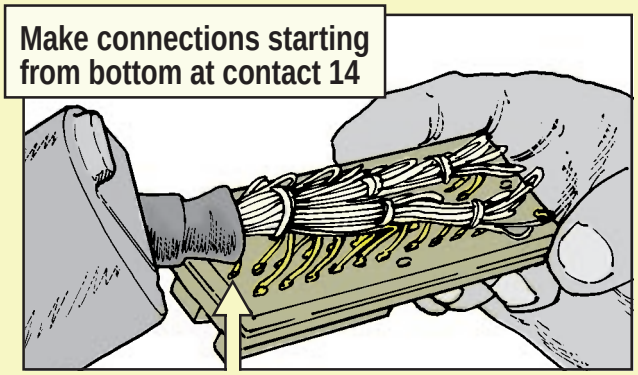
Rewiring a 26-pair cable connector can be a real repair headache. But there are a couple of things you can do to ease the pain.

First, use this chart to help you when you test the wires and also when you connect them. Include the pin number, the color of the wire and the color of the band on the wire.

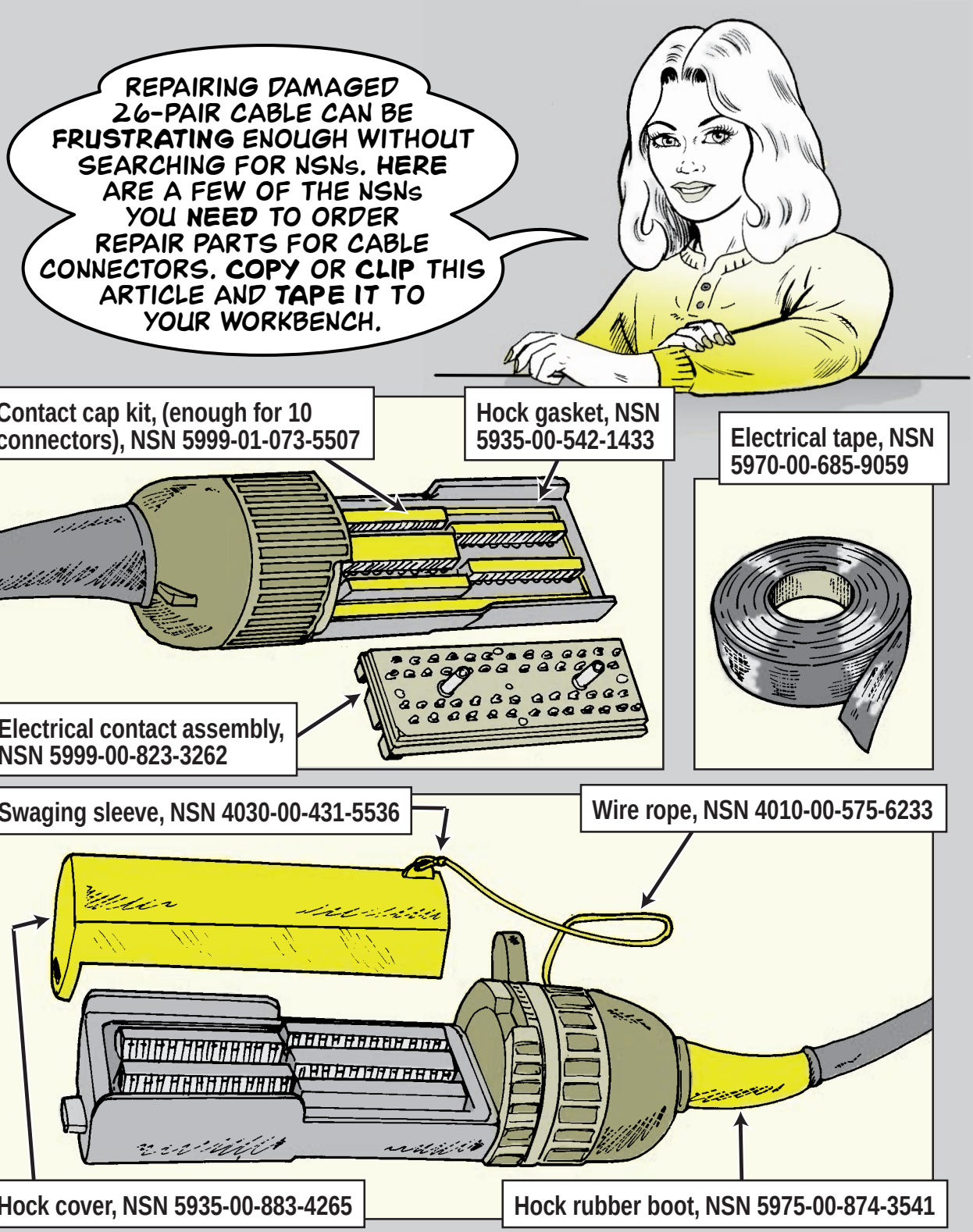
Second, make the wire connections from the bottom of the hock (closest to the cable) to the top, cutting the wires to fit as you go. Too much wire slack or not enough leads to broken wires.

Pin #	Wire color/band color
1	Blue/White
15	Gray/Black
3	Green/White
17	Orange/Yellow
5	Gray/White
19	Brown/Yellow
7	Orange/Red
21	Blue/Violet
9	Brown/Red
23	Green/Violet
11	Blue/Black
25	Gray/Violet
13	Green/Black
26	Red/White
12	Orange/Black
24	Brown/Violet
10	Gray/Red
22	Orange/Violet
8	Green/Red
20	Gray/Yellow
6	Blue/Red
18	Green/Yellow
4	Brown/White
16	Blue/Yellow
2	Orange/White
14	Brown/Black

Make connections starting from bottom at contact 14



Good-to-Know NSNs



You have to fabricate the cover's wire retainer with the wire rope and the swaging sleeve. You'll also need a crimp tool. NSN 5120-00-323-2292 brings one that will do the job. You can find some of these parts and other information in TM 11-5985-212-13P, *Connector, Plug, Electrical, U-185A/G and U-185B/G.*

26-Pair Cable . . .

Not in the Bag

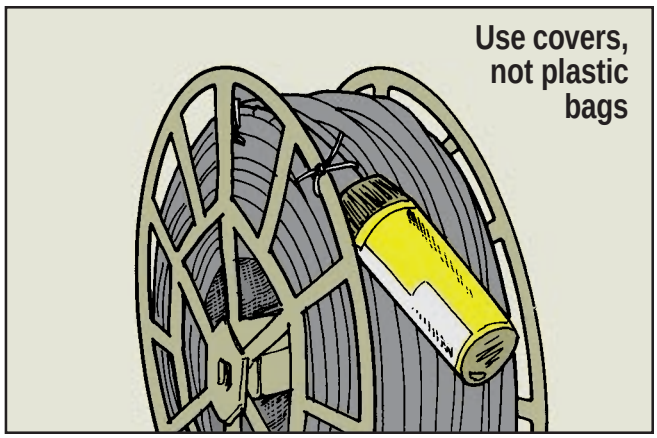
To protect the receptacles and connectors on your 26-pair cables during travel, manufacturers and repairers sometimes put them in plastic bags.

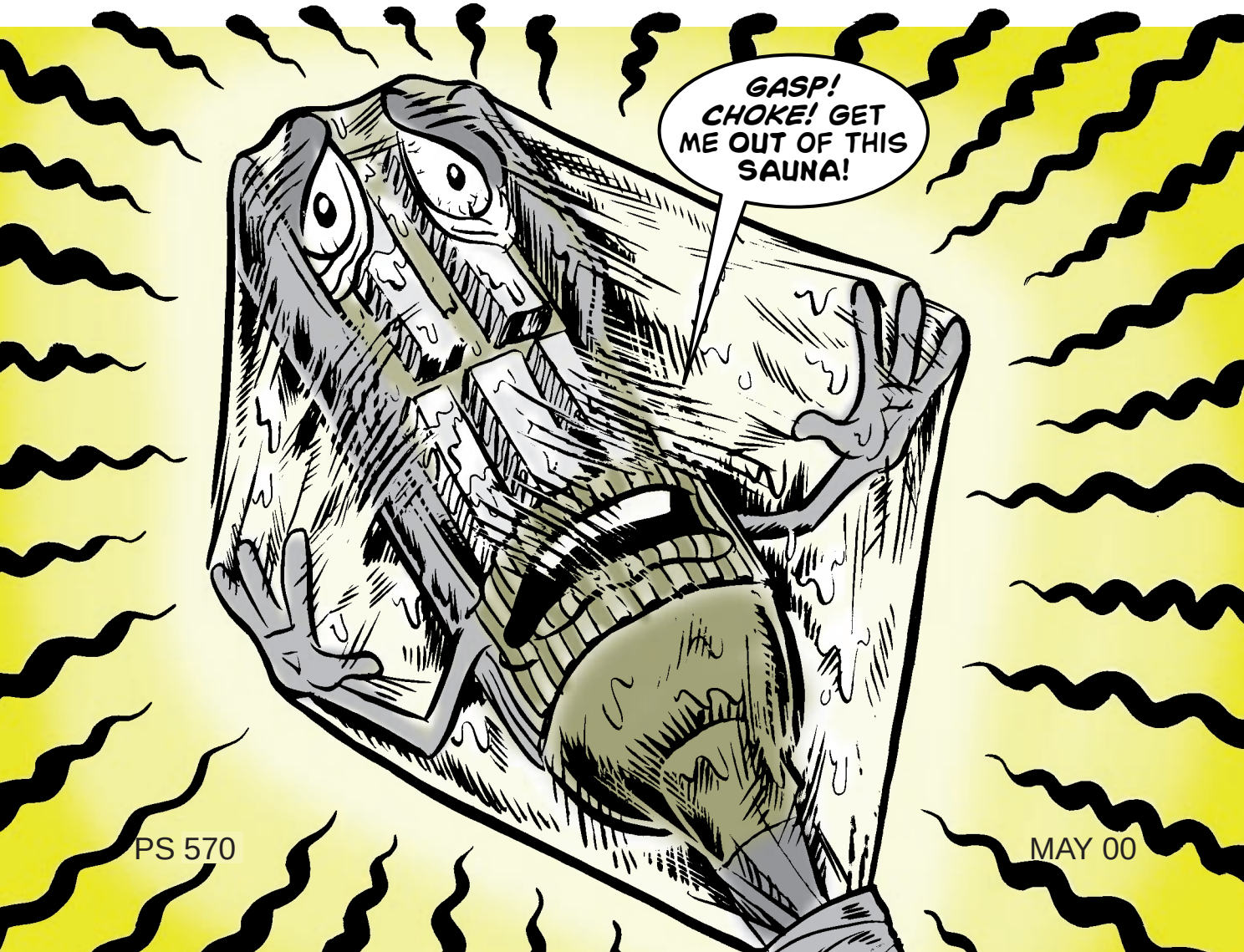
Some of you have latched onto the idea that this might be a good way to keep moisture off the connectors while your cables are stored.

Unfortunately, the reverse is often true. Temperature changes lead to condensation in that plastic bag and the trapped moisture rapidly corrodes the connector you're trying to protect.

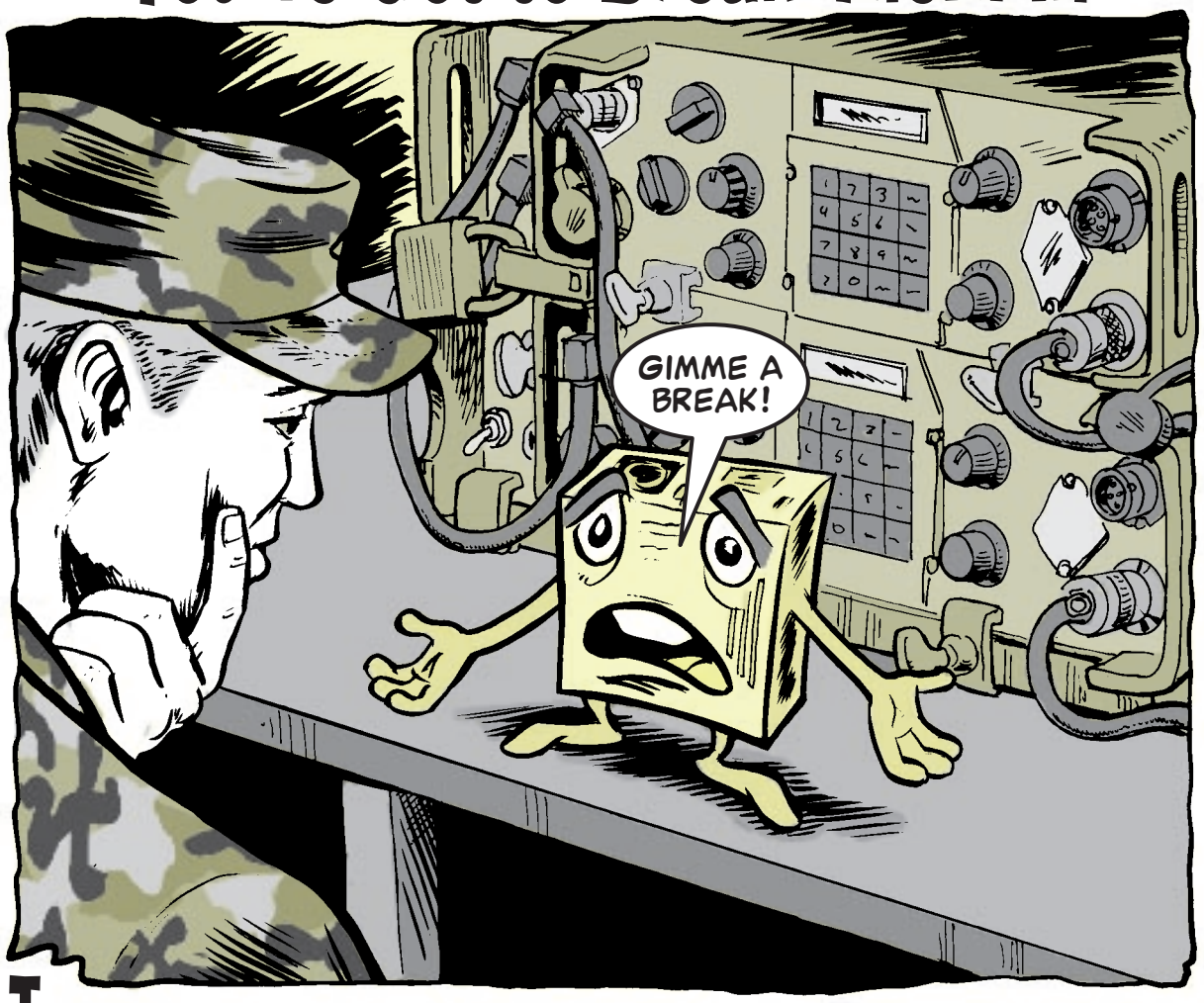
So when you're not using a cable, put covers, NSN 5935-00-883-4265, on receptacles and connectors. The covers will keep out dirt and moisture.

If you do use plastic bags for extra protection during storage, monitor the bags closely for signs of trapped moisture.





You've Got to Break Them In



That's what a new BB-390A rechargeable battery would tell you if it could talk.

The BB-390A needs a "break in" period. Its out-of-the-box performance in your SINCGARS equipment will only be 6 to 8 hours.

But that figure will improve with each charge cycle until about the third charge cycle when performance will level off at 12 to 18 hours depending on use.

Fully charge the BB-390A prior to first use. Use the new BB-390A first at a TOC, garrison, or other location that can afford an initial low run time. Prior to the next charge cycle, ensure the new BB-390A is fully drained in your equipment or via the PP-8448 Discharger, NSN 6130-01-430-3108, and then recharge. Repeat the charge/discharge cycle one more time.

If you have questions about the "break in" period, call CECOM at DSN 992-4948 or (732) 532-4948 or e-mail them at:

brockeld@mail1.monmouth.army.mil

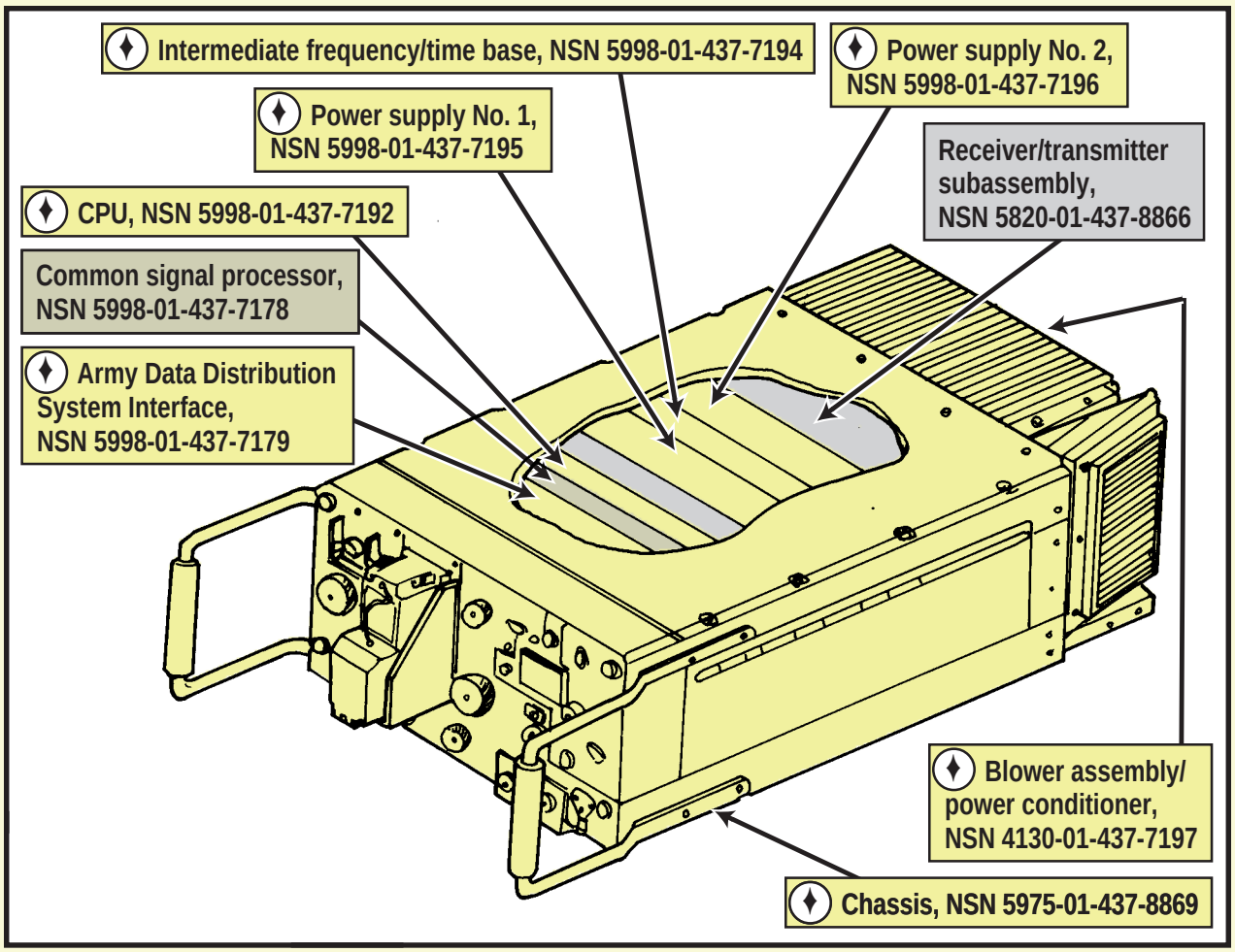
And don't forget to vist the CECOM rechargeable battery website at:

http://www.monmouth.army.mil/cecom/lrc/lrchq/power/rechargebat.html

JTIDS AN/GSQ-240A(C) . . .

Where to Send It

Not every part on your Joint Tactical Information Distribution System AN/GSQ-240A(C) radio set goes to the same place for repair or replacement.



W25G1W-BY6
Transportation Officer
Defense Distribution Depot Tobyhanna
Bldg 1C, Bay 6 Receiving
Tobyhanna, PA 18466-5059

Send the common signal processor to the same address, but instead of “Bldg 1C, Bay 6 Receiving”, Send it to “Bldg 73”.

Send the receiver/transmitter subassembly to:

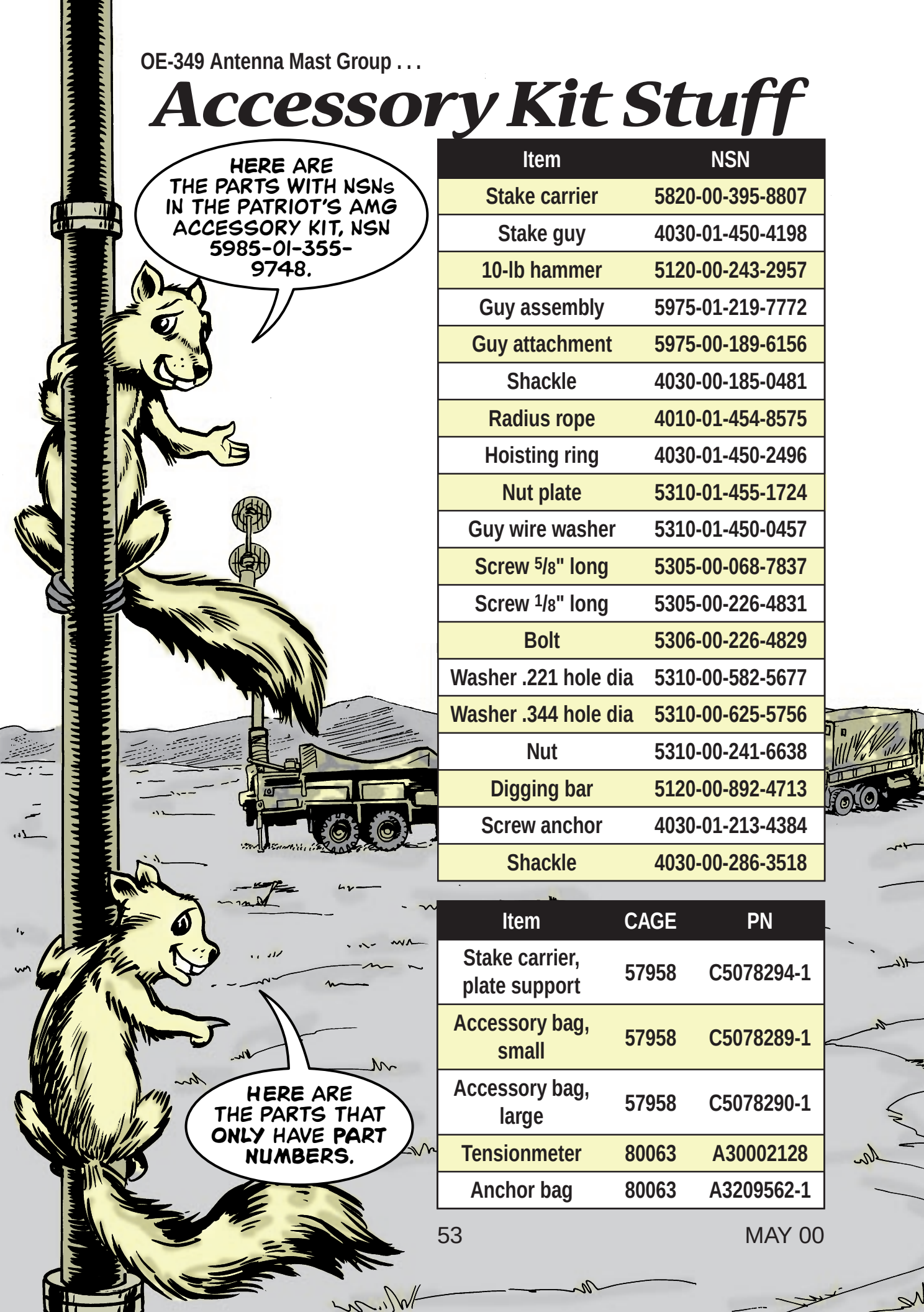
Rockwell Collins Corp
855 35th St. Northeast
ATTN: MS 139-228
Cedar Rapids, IA 52498

If you need more info, call the CECOM POC, Bob Benedict, at DSN 992-1804. Or e-mail him at:

benedict@mail1.monmouth.army.mil

OE-349 Antenna Mast Group . . .

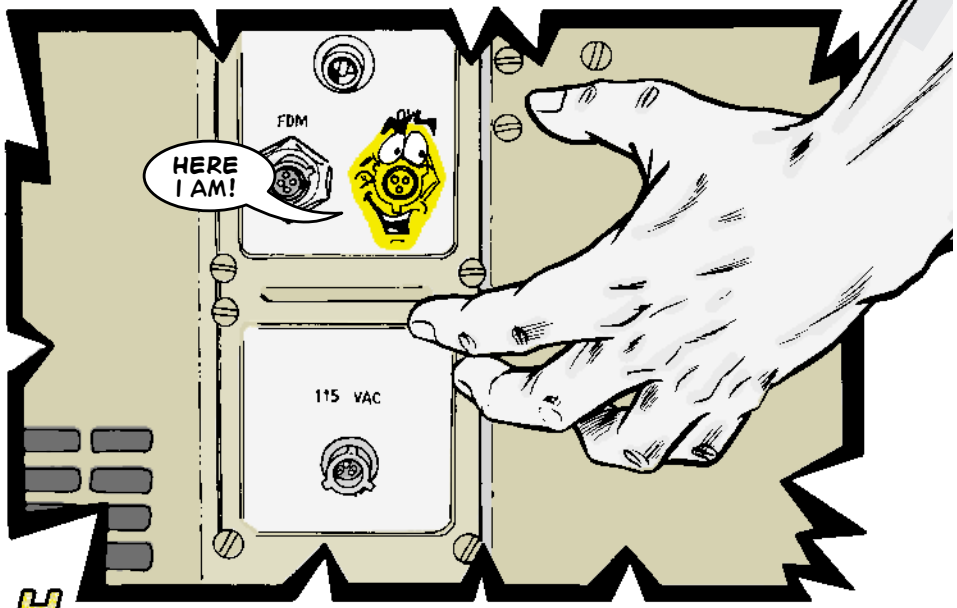
Accessory Kit Stuff



Item	NSN
Stake carrier	5820-00-395-8807
Stake guy	4030-01-450-4198
10-lb hammer	5120-00-243-2957
Guy assembly	5975-01-219-7772
Guy attachment	5975-00-189-6156
Shackle	4030-00-185-0481
Radius rope	4010-01-454-8575
Hoisting ring	4030-01-450-2496
Nut plate	5310-01-455-1724
Guy wire washer	5310-01-450-0457
Screw 5/8" long	5305-00-068-7837
Screw 1/8" long	5305-00-226-4831
Bolt	5306-00-226-4829
Washer .221 hole dia	5310-00-582-5677
Washer .344 hole dia	5310-00-625-5756
Nut	5310-00-241-6638
Digging bar	5120-00-892-4713
Screw anchor	4030-01-213-4384
Shackle	4030-00-286-3518

Item	CAGE	PN
Stake carrier, plate support	57958	C5078294-1
Accessory bag, small	57958	C5078289-1
Accessory bag, large	57958	C5078290-1
Tensionmeter	80063	A30002128
Anchor bag	80063	A3209562-1

"Seeing" the Connection



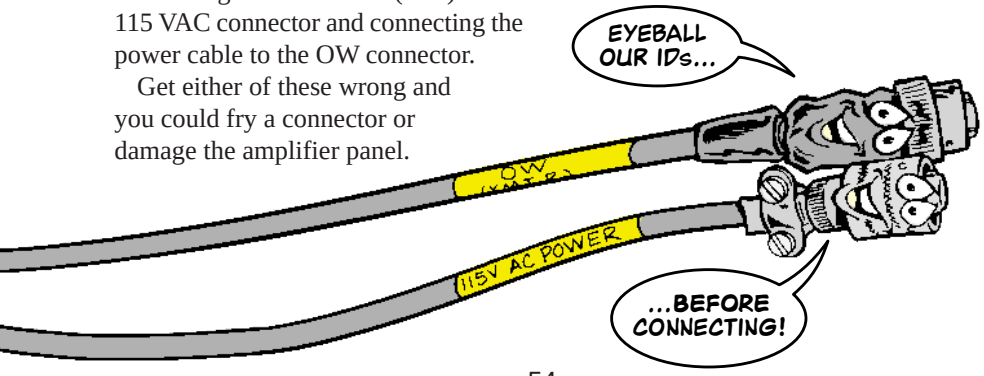
Hooking up cables to the back of the AN/GRC-103 radio set's T-983 transmitter is a lot like playing Pin the Tail on the Donkey. Except no one laughs when you make a wrong hookup.

The biggest hookup problems are connecting the order wire (OW) to the 115 VAC connector and connecting the power cable to the OW connector.

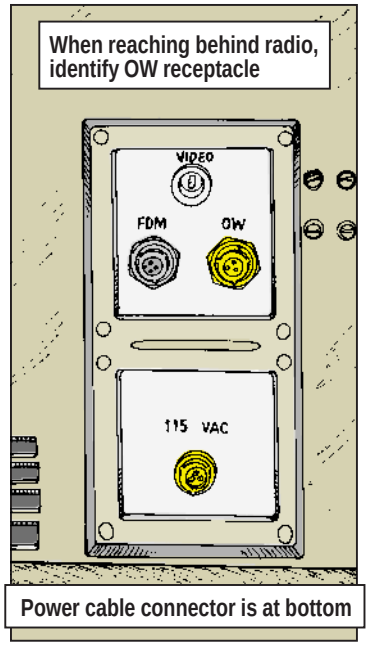
Get either of these wrong and you could fry a connector or damage the amplifier panel.

Often you make these connections while balancing the radio with your body, steadying it with one hand, and reaching back to make a blind connection with the other.

The secret to a good connection is to identify the connectors with your hand



first. Reach behind the radio and find the triangle of receptacles. The one on the lower left (as your hand feels it) is the OW receptacle.



Below this triangle of receptacles is a fourth receptacle all by itself. That's the 115 VAC outlet where your power cable goes.

Now grab the right cable. It's clearly labeled with a yellow band. Take the right cable to the right receptacle.

By identifying these receptacles with your hand first, it will be like taking your "blindfold" off. You'll never pin the tail on the wrong end of the donkey again.

Get the Kit

You no longer have to order your TE-33 lineman's tool kit piece-by-piece. NSN 5180-00-408-1859 will get you the whole kit, including knife, pliers with skinners, and a tool carrier.

If you don't need the whole kit, you can get the knife with NSN 5110-00-240-5943, the pliers with skinners with NSN 5120-00-247-2063, and the tool carrier with NSN 5140-00-498-8898.

Only You Can Prevent SDR Destruction

Does "forever" describe how long you've been waiting for a reply to a SF 364, Supply Discrepancy Report (SDR), you sent to another military service, DLA or GSA?

Well, it may be that they just couldn't read it.

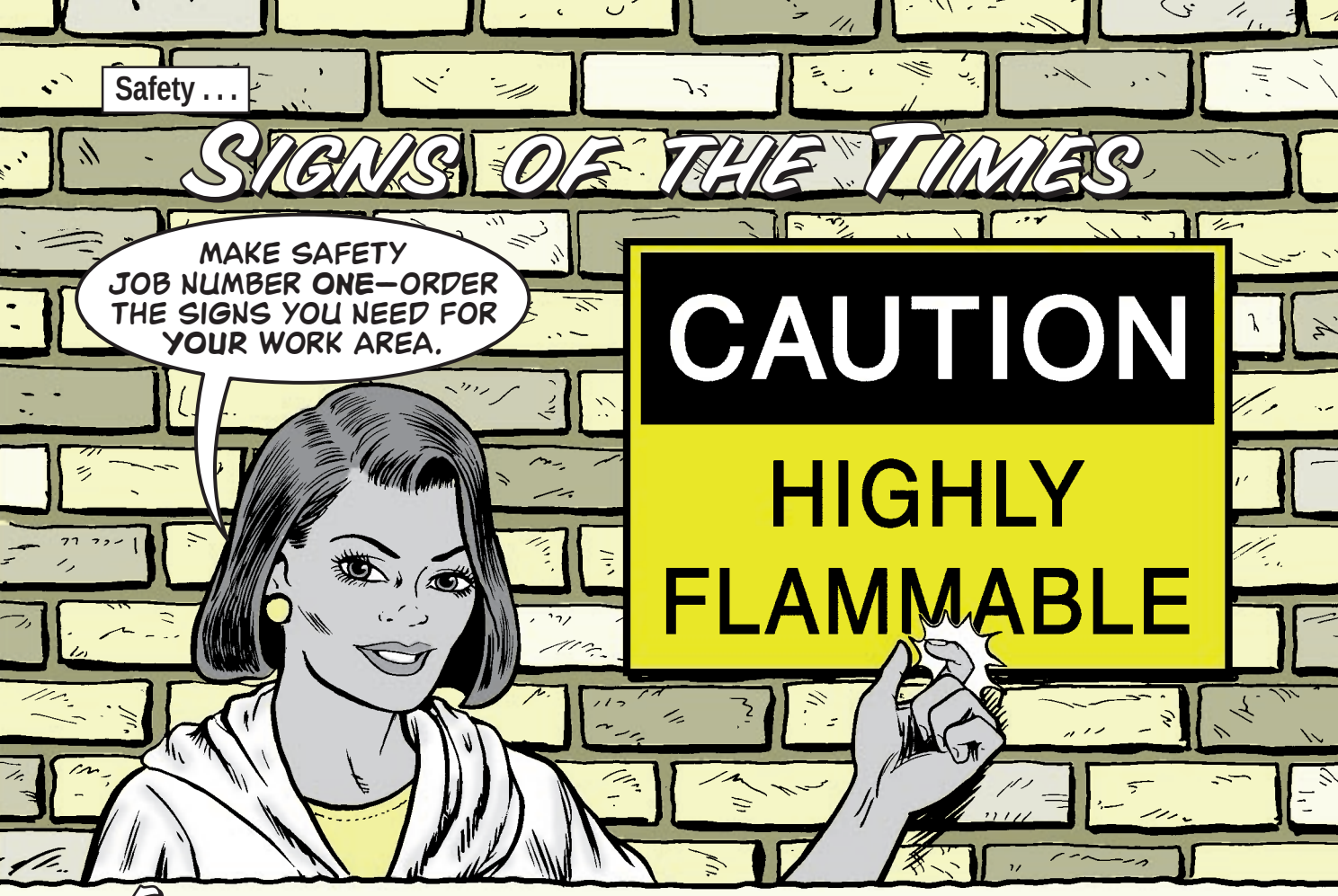
The Army representative to the DOD SDR program is hearing complaints from the other services (DLA and GSA) that Army SDRs **cannot be read.**

The reasons include smudged copies or printed copies that are too light to be read. Since the item manager can't read them, they are trashed.

The solution: Check out your open SDRs and make sure they can be read. If you find some of the info is unclear, or too light to read, write over the questionable info and send it on its way to the service or agency that got the original.

Safety . . .

SIGNS OF THE TIMES



Ever see a safety sign and know that it's just what your unit motor pool needs? If it is one of these common ones, you can add it to your work area now.

The following black and yellow signs are all 10x14 inches:

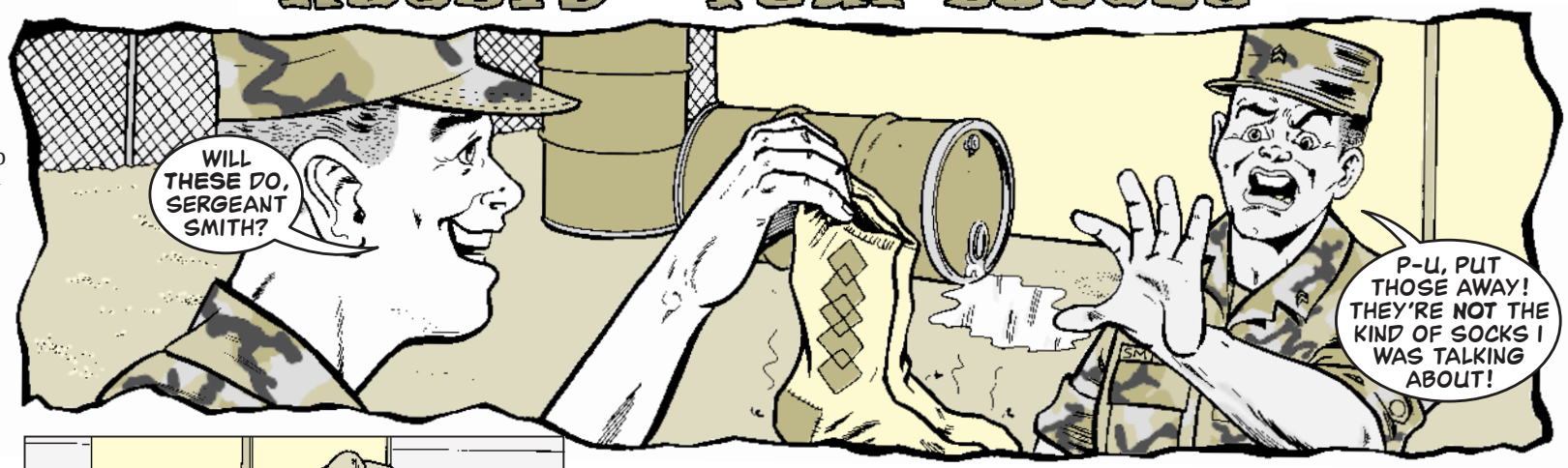
Legend	NSN 9905-01-
CAUTION Hearing Protection Required	100-8205
CAUTION Hearing Protection Required in this Area	031-1247
CAUTION High Noise Area Wear Ear Plugs	122-1140
CAUTION Eye Protection Required	100-8203
CAUTION Do Not Operate Without Eye Protection	100-8204
CAUTION Highly Flammable	054-0428
CAUTION Watch Your Step	054-0450

Two 7x10-in signs are available. **CAUTION Highly Flammable** is NSN 9905-01-054-0427. **CAUTION Wear Goggles When Using This Machine** is NSN 9905-00-956-6324.

A black and yellow noise caution plate—**CAUTION High Intensity Noise Hearing Protection Required**—is NSN 9905-00-198-2728. It is 4.6x2.13 inches and comes with adhesive backing.

For more information on signs and symbols to use in dangerous areas, check out AR 385-30, *Safety Color Code Markings and Signs*.

Absorb Your Losses



If you want to help keep the environment clean by controlling POL spills, you need the help of some thirsty absorbers.

Uncle Sam stocks a variety. There are big picker-uppers for use on big spills. And there are small pads to use instead of drip pans. Since these pads don't have to be on flat terrain, they're especially useful during field exercises.

The best part is that these picker-uppers, big and small, pick up only the spill. They don't absorb water.

Here's what's available:

Socks absorb hazardous waste

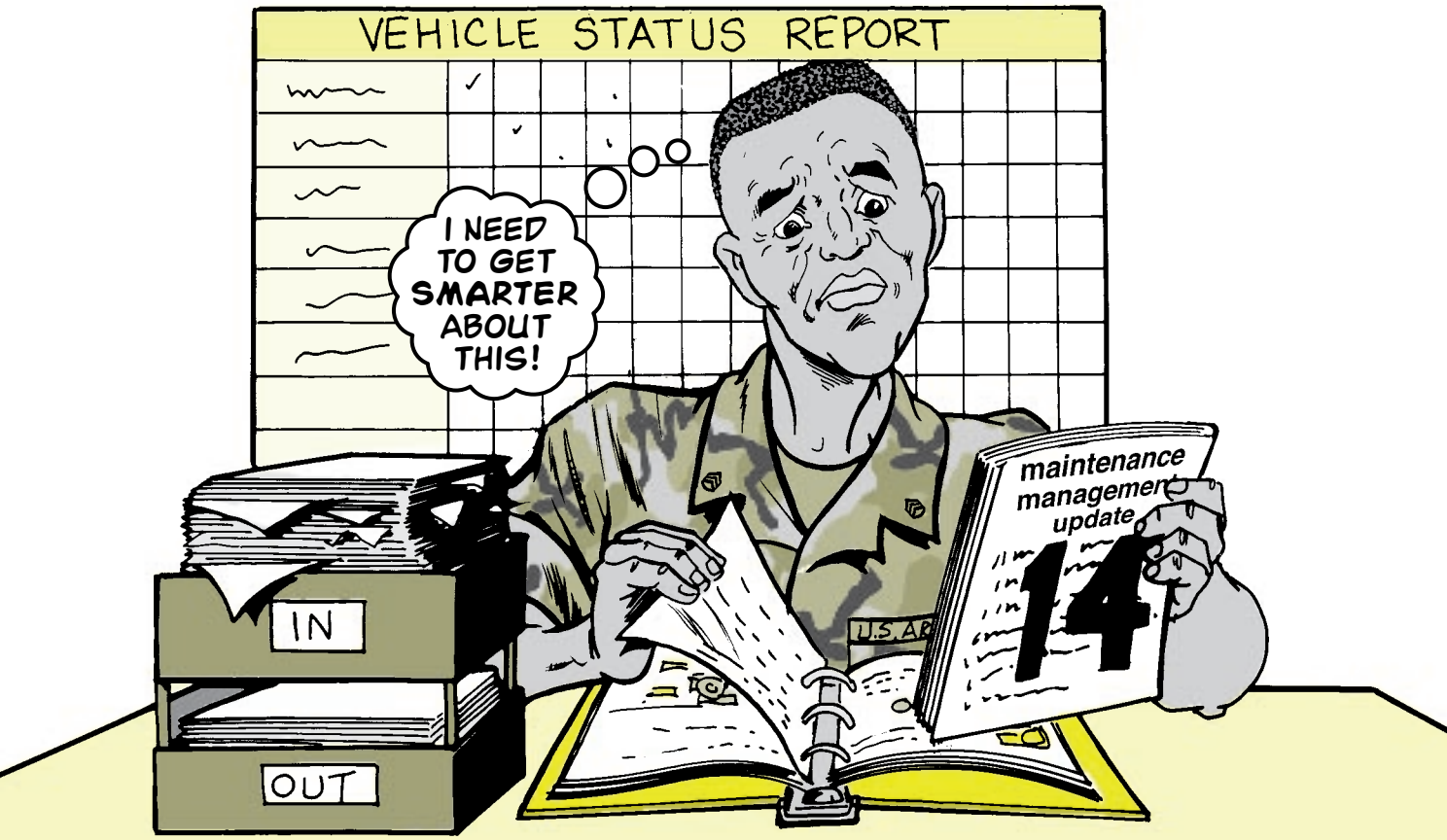
Item	NSN 4235-01-
Loose absorbent, 1 cubic-foot bag, (four bags per case, each bag absorbs up to 8 gallons)	423-1466
Loose absorbent, 2 cubic-foot bag, (three bags per case, each bag absorbs up to 16 gallons)	423-0711
Pad, 18x18x3-in, (30 pads per case, each pad absorbs slightly more than 2 gallons)	423-1463
Sock, 2-in x 10-ft, (20 socks per case, each sock absorbs slightly more than 3 gallons)	423-1467
Sock, 4-in x 8-ft, (10 socks per case, each sock absorbs up to 4 gallons)	423-1465
Boom, 10-ft x 10-in, (three booms per case, each boom absorbs slightly more than 13 gallons)	423-2787

Item	NSN 4235-01-
Water-resistant nylon tote bag spill response kit, with four 18x18x3-in pads, two 2-in x 5-ft socks, one 3/4 cubic-foot bag of absorbent and two waste disposal bags. Absorbs up to 15 gallons.	432-7909
Spill response kit with 25-gal high-strength, stress-resistant and impact-resistant drum with seven 18x18x3-in pads, one 4-in x 8-ft sock, two 4-in x 4-ft socks, one 3/4 cubic-foot bag of absorbent, two protective Tyvek suits, two pair nitrile gloves, one pair safety goggles and three waste disposal bags. Absorbs between 22-31 gallons.	432-7912
Spill response kit with 55-gal high-strength, stress-resistant and impact-resistant drum with fifteen 18x18x3-in pads, two 4-in x 4-ft socks, two 4-in x 8-ft socks, three 3/4 cubic-foot bags of absorbent, three protective Tyvek suits, three pair nitrile gloves, three pair safety goggles and five waste disposal bags. Absorbs between 45-55 gallons.	423-7214
Spill response kit with 55-gal high-strength, stress-resistant and impact-resistant drum specially equipped for spills on or around water with ten 18x18x3-in pads, five 2-in x 10-ft socks, five 3/4 cubic-foot bags of absorbent, two protective Tyvek suits, two pair nitrile gloves, two pair safety goggles, one shovel, one 3 1/2-gal bucket, one 2-qt emulsifier and five waste disposal bags. Absorbs between 45–55 gallons.	423-7221

For disposal of the absorbers, follow Army regulations and your installation's environmental policy.

You can get a free copy of a video showing these products in use by calling (800) 872-5741 or e-mailing: **video@arkent.com**

Be Prepared with BMOC



Are you an E-5 or above, warrant officer, or commissioned officer O-1 through O-3, and up to your elbows in unit maintenance operations? If so, the battalion motor officer course (BMOC) is designed especially for you.

BMOC, course number 171 Q11, is only available through the Army Correspondence Course Program (ACCP). It comes in a CD-ROM format, contains 14 lessons and is divided into two parts.

Part one provides detailed instruction in ULLS-G, unit safety, environmental policies, tactical maintenance considerations, PMCS, scheduled maintenance, repair parts supply, administrative controls (licensing, dispatch, pubs), and AMSS reporting.

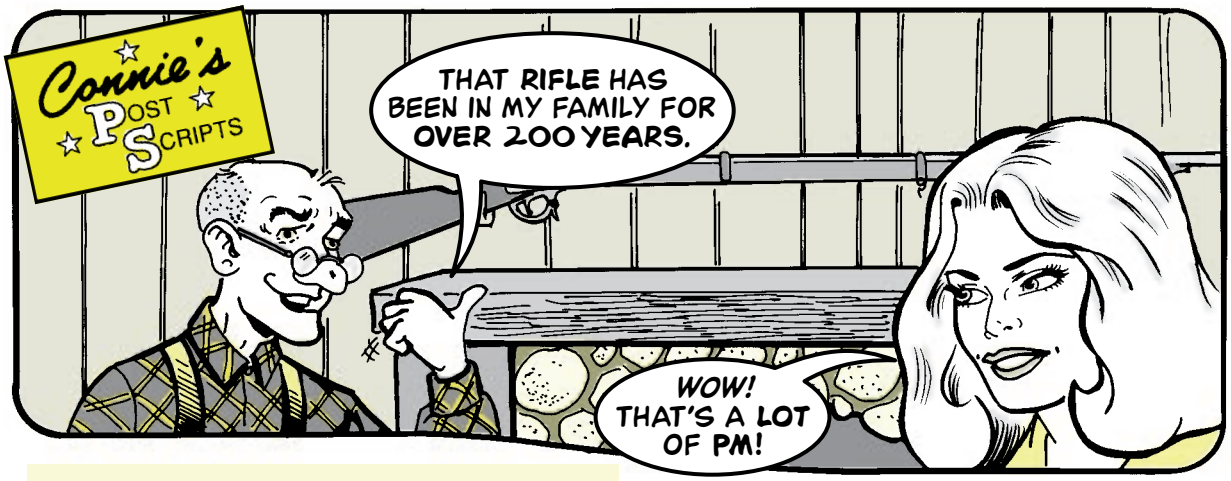
Part two is the PM checks that are part of daily motor pool operations.

Completion of both parts is required to receive course credit.

For information, call the course manager at (270) 624-2509/8119, DSN 464-2509/8119, or go to the ACCP home page:

http://www.atsc.army.mil/accp/aipd.htm

The ACCP home page also lets you register on-line.



M249 MG BFA

The NSN for the M249 machine gun's blank firing attachment that's listed on Page C-5 in TM 9-1005-201-10 has changed. The correct NSN is 1005-21-912-8997.

Air Conditioner Screw

The screw used to attach the top cover of the 18K MPI air conditioner, NSN 4120-01-327-1316, is too long. It can puncture the condenser and let freon leak out. The screw called out as Item 1 in Fig 2 of TM 9-4120-401-24P, is incorrect. The correct screw is NSN 5305-00-958-6373.

LOGSA Reports Go On-line

From velocity management (VM) repair cycle time to unique item tracking (UIT) reports, if the Logistics Support Activity (LOGSA) is responsible for it, then it's now, or soon will be, on the LOGSA homepage:

http://www.logsa.army.mil

Once there, click on "What's New" or "Online Products". Access to these reports is restricted to military or US Government domains (addresses ending in .mil or .gov). You also need a password since most reports are password protected. Instructions on requesting a password are provided on the "Online Products" screen.

New Tire for FMTV

Goodyear has joined Michelin as an authorized tire supplier for FMTVs under NSN 2610-01-356-9098. Mixing of the two brands on the same truck has been tested and is OK. While it's not required, you can use the same brand on an axle to get a small increase in tire life.

Extend Your Reach

Removing snow, and other debris from tent tops can make you wish you had the reach of an NBA superstar. But if you don't remove snow and debris, they can collapse your tent. Try attacking this chore with a snow rake, NSN 5120-01-464-6340. Its aluminum telescopic pole extends your reach to 18 feet. The headshed is working to add the rake to all tent TMs.

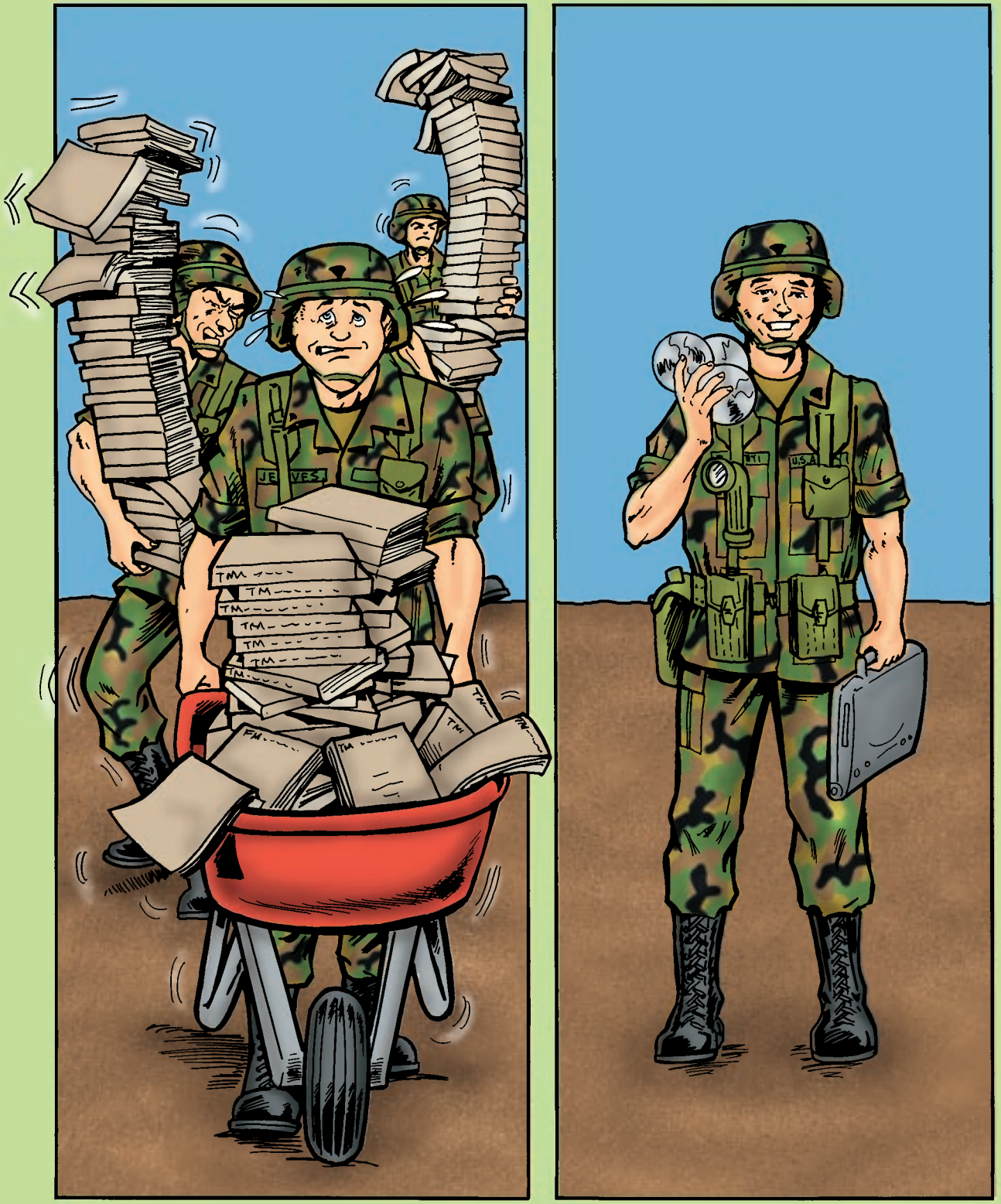
M59 Lid Fastener

Forget the wing nut shown as Item 31 in Fig D-1 of the M59 field range outfit's TM 10-7360-204-13&P. The picture's wrong. NSN 5305-00-021-3620 brings the fastener you need, a 1/4-20 x 7/8 inch long hex head cap screw. If the hole in the lid hinge retainer isn't big enough for the screw, enlarge the hole. Make note of this info until the TM is corrected.

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

Would You Stake Your Life right now on the Condition of Your Equipment?

HEADING TO THE FIELD?



TRAVEL LIGHT...TAKE YOUR ETMs!